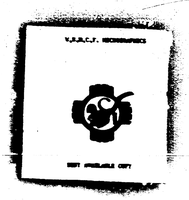
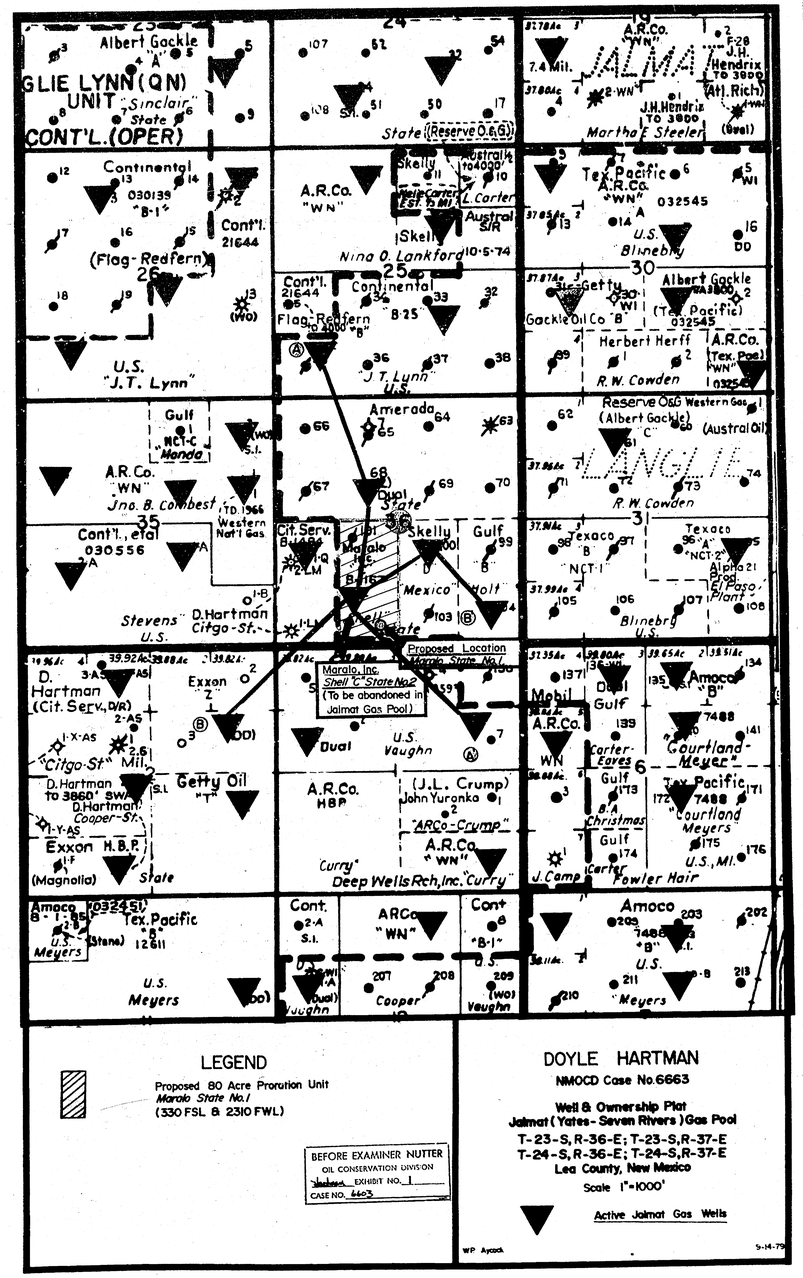
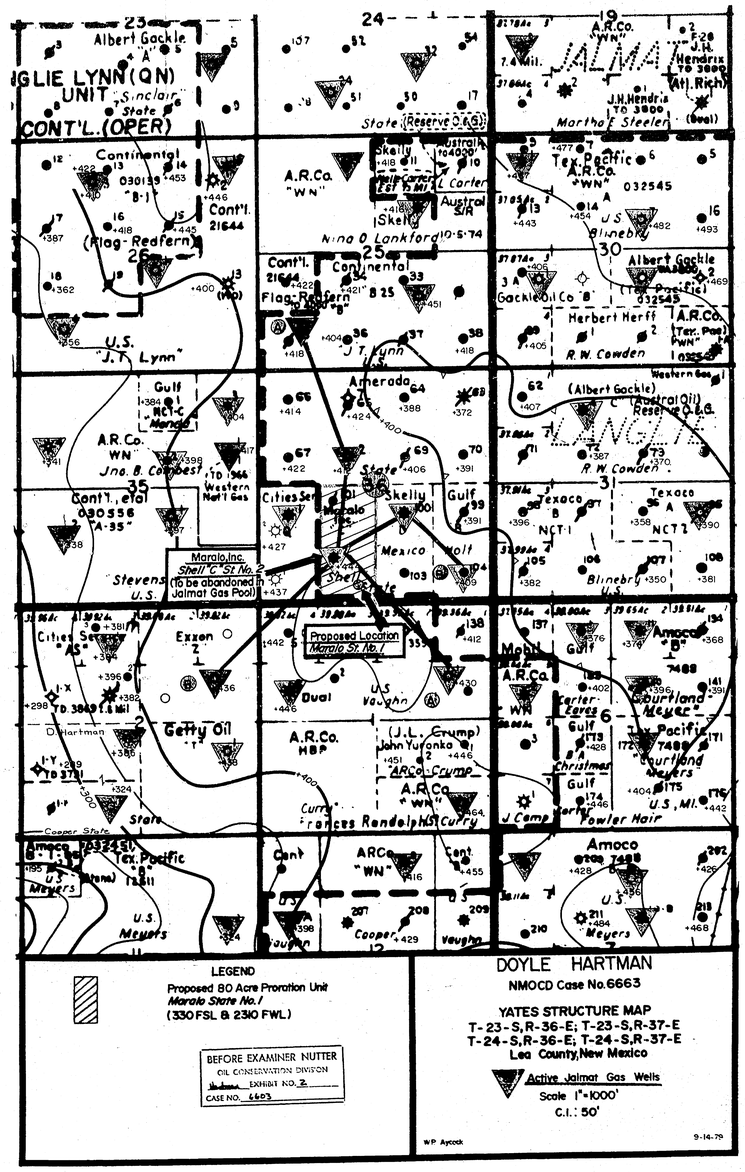
Case No
6603

Large Exhibits




GLIE LYNN (QN) UNIT
CONT'L. (OPER)
Albert Gackle
"Sinclair" State
Continental 030139 "B-1"
Cont'l. 21644
(Flag-Redfern)
U.S. "J.T. Lynn"
A.R.Co. "WN"
Jno. B. Combest
Gulf NCT-C Mendo
Cont'l., etal 030556
Stevens U.S.
D. Hartman (Cit. Serv., D/R)
"Citgo-St"
D. Hartman TO 3860' SWD
D. Hartman Cooper-St.
Exxon H.B.P.
(Magnolia)
State
Getty Oil "T"
Amoco 032451
Tex. Pacific "B" 12611
U.S. Meyers
Exxon "Z"
Cit. Serv. B-11464
Marala Inc. B-11615
Skelly
Gulf
Mexico
Holt
D. Hartman (Cit. Serv., D/R)
Dual
U.S. Vaughn
Proposed Location Marala State No.1
Marala, Inc. Shell "C" State No.2 (To be abandoned in Jalmat Gas Pool)
A.R.Co. H.B.P.
(J.L. Crump) John Yuronka
"ARCo-Crump"
A.R.Co. "WN"
Curry
Deep Wells Rch, Inc. "Curry"
Cont.
ARCo "WN"
Cooper
Vaughn
Stevens U.S.
State (Reserve O.&G.)
Skelly
Austral to 4000'
Weir Carter Est. 2 Mi.
L. Carter
Austral S/R
Nina O. Lankford 10-5-74
Continental
Flag-Redfern TD 4000' "B"
J.T. Lynn U.S.
Amerada
Dual State
Cit. Serv. B-11464
Marala Inc. B-11615
Skelly
Gulf
Mexico
Holt
Proposed Location Marala State No.1
Marala, Inc. Shell "C" State No.2 (To be abandoned in Jalmat Gas Pool)
Dual
U.S. Vaughn
A.R.Co. H.B.P.
(J.L. Crump) John Yuronka
"ARCo-Crump"
A.R.Co. "WN"
Curry
Deep Wells Rch, Inc. "Curry"
Cont.
ARCo "WN"
Cooper
Vaughn
A.R.Co. "WN"
7.4 Mil.
JALMAT
J.H. Hendrix TO 3800 (Atl. Rich)
J.H. Hendrix TO 3800
Martha E. Steeler
Tex. Pacific A.R.Co. "WN" 032545
U.S. Blinebry
Getty
Albert Gackle (Tex. Pacific) 032545
Gackle Oil Co. "B"
Herbert Herff
R.W. Cowden
A.R.Co. (Tex. Pac.) "WN" 032545
Reserve O&G (Albert Gackle)
Western Gas (Austral Oil)
LANGLIE
R.W. Cowden
Texaco "B" NCT-1
Texaco "A" NCT-2
Alpha 21 Prod. El Paso Plant
Blinebry U.S.
Amoco "B"
Mobil
Dual
Gulf
A.R.Co. "WN"
Carter-Eares
Courtland-Meyer
Gulf
B.A. Christmas
Tex. Pacific "Courtland Meyers"
U.S., Mi.
J. Camp
Carter
Fowler Hair
Amoco
U.S. Meyers
LEGEND
Proposed 80 Acre Proration Unit
Marala State No.1
(330 FSL & 2310 FWL)
BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
EXHIBIT NO. 1
CASE NO. 6603
DOYLE HARTMAN
NMOCD Case No. 6663
Well & Ownership Plat
Jalmat (Yates-Seven Rivers) Gas Pool
T-23-S, R-36-E; T-23-S, R-37-E
T-24-S, R-36-E; T-24-S, R-37-E
Lea County, New Mexico
Scale 1"=1000'
Active Jalmat Gas Wells
WP Aycock
9-14-79



LEGEND

Proposed 80 Acre Proration Unit
Marala State No. 1
(330 FSL & 2310 FWL)

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
EXHIBIT NO. 2
CASE NO. 6663

DOYLE HARTMAN
NMOCD Case No. 6663

YATES STRUCTURE MAP
T-23-S, R-36-E; T-23-S, R-37-E
T-24-S, R-36-E; T-24-S, R-37-E
Lea County, New Mexico

Active Jalmat Gas Wells
Scale 1"=1000'
C.I.: 50'

W.P. Aycock 9-14-79

U.S.G.S. TOPOGRAPHIC
BEST AVAILABLE COPY

CONTINENTAL NO. 2
LYNN B-25

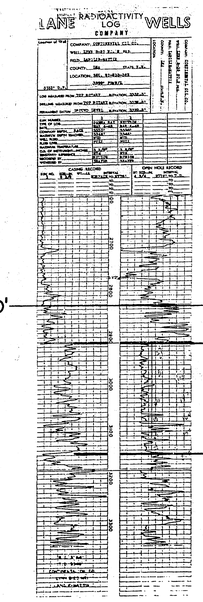
AMERADA NO. 2
STATE L.M.T.

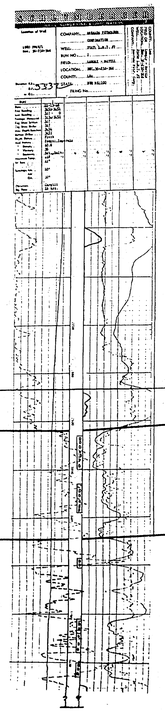
GETTY NO. 2-C
(R. LOWE)
SHELL-STATE

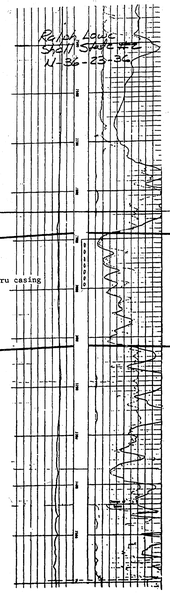
CONTINENTAL NO. 1
VAUGHN B-1

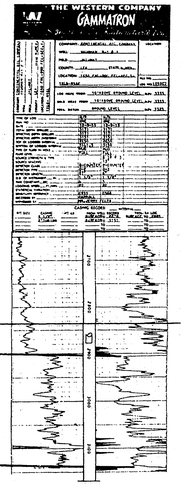
A
NORTH

A'
SOUTH









+500'

TOP OF YATES

TOP OF SEVEN RIVERS

+500'
OH 2879-3171

PERF 2930-3000
3030-90

PERF 3185-205

PERF 3310-80
3400-30
w/500 normal

PERF 2900-3000
10.000 MMCFGPD thru casing

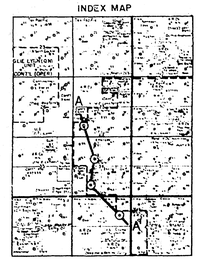
TD 3350
IPF 80.800 MMCFGPD
3-4-48

TD 3600
IPF 130 BOPD + 0.498 MMCFGPD
12-20-48
OWWO 3-23-59
TD 3600
PP 3437
IPF 1.697 MMCFGPD
SF/20.000 GAL OIL

TD 3600
IPF 166 BOPD (GN.)
10.000 MMCFGPD (YATES)
11-30-47

TD 3171
IPF 33.100 MMCFGPD
OH 2879-3171
10-20-47

INDEX MAP



BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
EXHIBIT NO. 3
CASE NO. 6603

STRUCTURAL
CROSS SECTION A-A'
(NORTH-SOUTH)

FIELD UP. YATES & SEVEN RIVERS	County LEA		State N MEX.
Engineer W. P. A.	Drwn. M's	Date 9-17-79	File HARTMAN
RADTKE, AYCOCK & ASSOC., INC. 310 WALL TOWERS WEST MIDLAND, TEXAS			EXHIBIT NO.

B
WEST

B'
EAST

EXXON NO. 1
STATE "Z"

GETTY NO. 2-C
(R. LOWE)
SHELL-STATE

SKELLY "D" NO. 1
(GETTY)
STATE (NLMU NO. 100)

GULF "B" NO. 2
(GETTY)
HOLT (MLMU NO. 104)

+500'

+500'

OH 2814-3073

OWWO-OH
2418-3275
A/500

PERF 2900-3000
10,000 MMCFGPD thru casing

TOP OF YATES

TOP OF SEVEN RIVERS

PERF 2920-3090
SWF/10,000 + 10,000

OH 3450-3600

Shot 3440-3580 w/284

DST 3375-608
GTS 9" @ 3.7 mcfpd
R 1062' GCM
626' HOCM & 236' OCM

TD 3073
IPF 3.60 MMCFGPD
OH 2814-3073
5-29-50
OWWO 6-9-76
TD 3275
IPF 0.639 MCFGPD
OH 2814-3275
6-9-76
AFT. WORKOVER 6-76
IPF 1.350 MMCFGPD

TD 3600
IPF 166 BOPD (GN.)
OH 3450-3600
10,000 MMCFGPD (YATES)
11-30-47

TD 3590
IPF 35 BOPD
OH 3400-3590

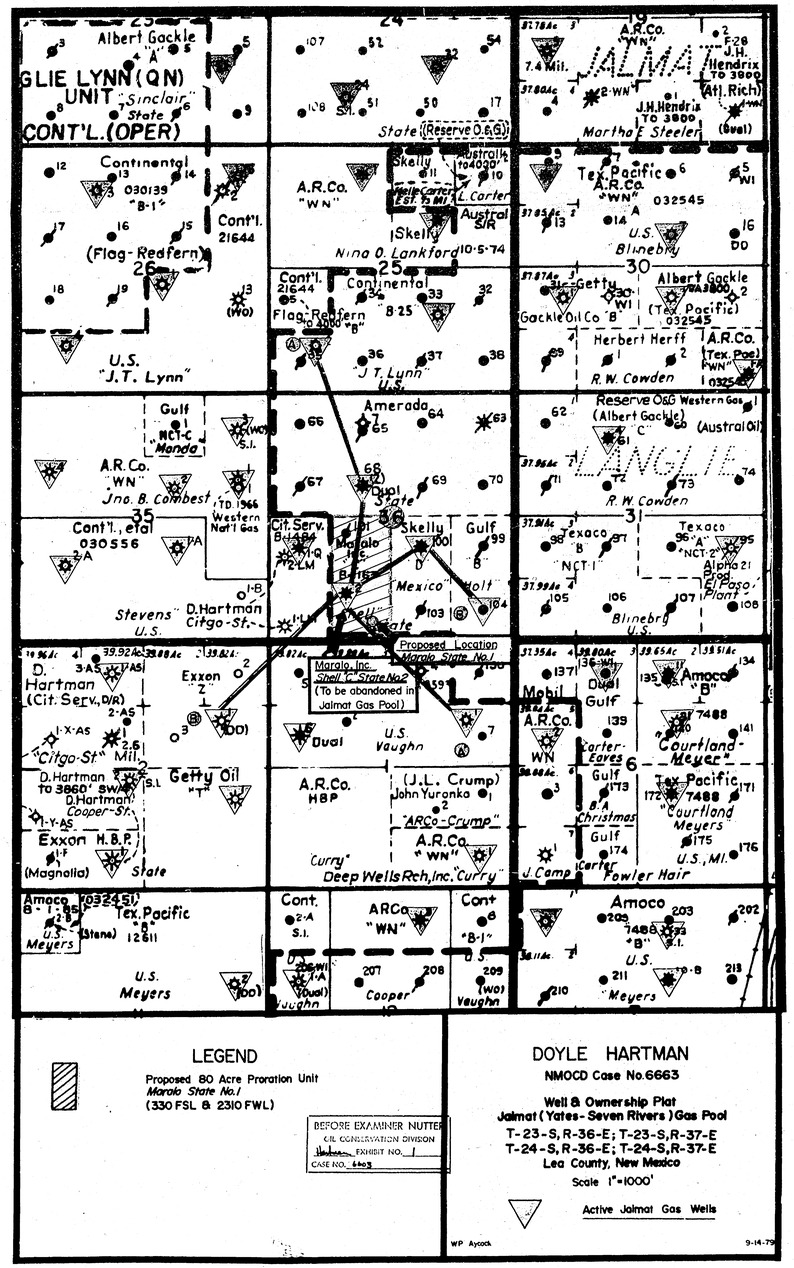
TD 3608
PB 3480
IPF 404 BOPD + 0.729 MMCFGPD
8-6-49
1955 JALMAT GAS COMPL.
IP 3.840 MMCFGPD
OWWO 5-25-56

INDEX MAP

BEFORE EXAMINER UTTER
OIL CONSERVATION DIVISION
Hartman EXHIBIT NO. 4
CASE NO. 6403

STRUCTURAL
CROSS SECTION B - B'
(WEST-EAST)

FIELD-UP YATES & SEVEN RIVERS	County LEA		State N MEX.
Engineer W. P. A.	Drwn MS	Date 9-17-79	File HARTMAN
RADTKE, AYCOCK & ASSOC., INC. 310 WALL TOWERS WEST MIDLAND, TEXAS			EXHIBIT NO.



LEGEND

Proposed 80 Acre Proration Unit
Marolo State No.1
(330 FSL & 2310 FWL)

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
EXHIBIT NO. 1
CASE NO. 6663

DOYLE HARTMAN

NMOCD Case No. 6663

Well & Ownership Plat
Jalmat (Yates-Seven Rivers) Gas Pool
T-23-S, R-36-E; T-23-S, R-37-E
T-24-S, R-36-E; T-24-S, R-37-E
Lea County, New Mexico
Scale 1"=1000'

Active Jalmat Gas Wells

WP Aycock 9-14-79

CONTINENTAL NO. 2
LYNN B-25

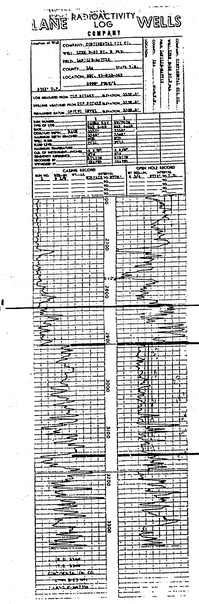
A
NORTH

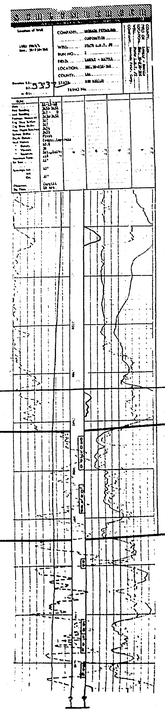
AMERADA NO. 2
STATE L.M.T.

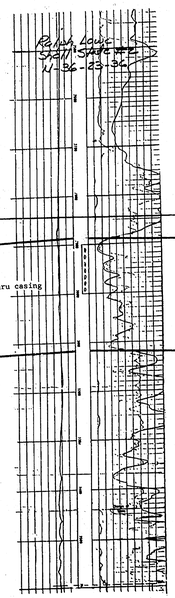
GETTY NO. 2-C
(R. LOWE)
SHELL-STATE

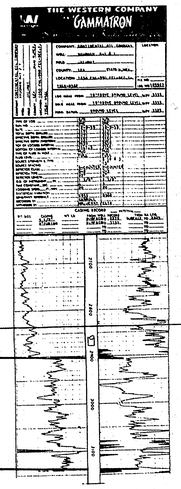
CONTINENTAL NO. 1
VAUGHN B-1

A'
SOUTH









+500'

+500'
OH 2879-3171

TOP OF YATES

TOP OF SEVEN RIVERS

PERF 2930-3000
3030-90

PERF 3185-205

PERF 3310-80
3400-30
w/500 normal

PERF 2900-3000
10.000 MMCFGPD thru casing

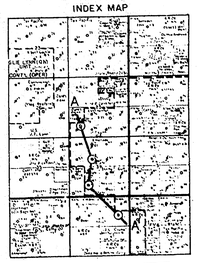
TD 3350
IPF 80.800 MMCFGPD
3-4-48

TD 3600
IPF 130 BOPD + 0.498 MMCFGPD
12-20-48
OWWO 3-23-59
TD 3600
PP 3457
IPF 1.697 MMCFGPD
SF/20.000 GAL OIL

TD 3600
IPF 166 BOPD (GN.)
10.000 MMCFGPD (YATES)
11-30-47

TD 3171
IPF 33.100 MMCFGPD
OH 2879-3171
10-20-47

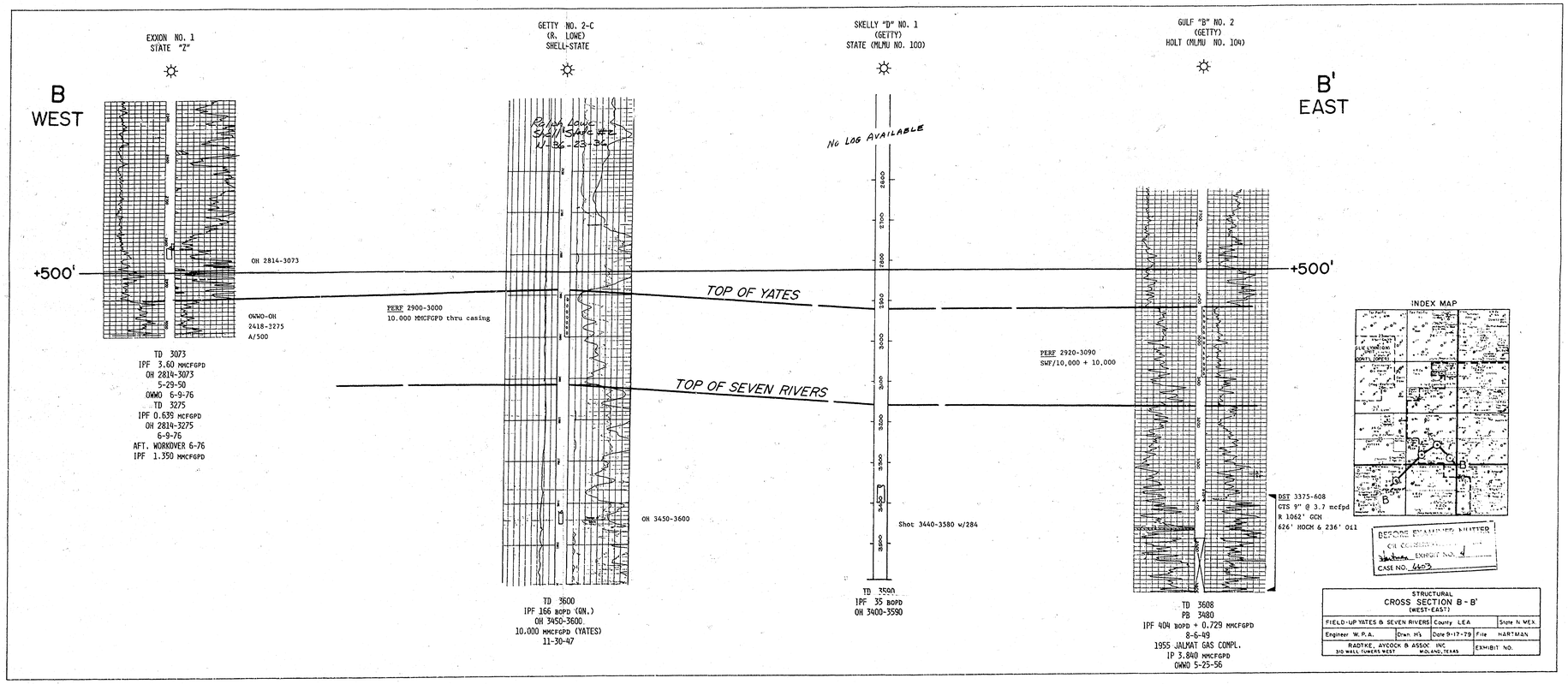
INDEX MAP

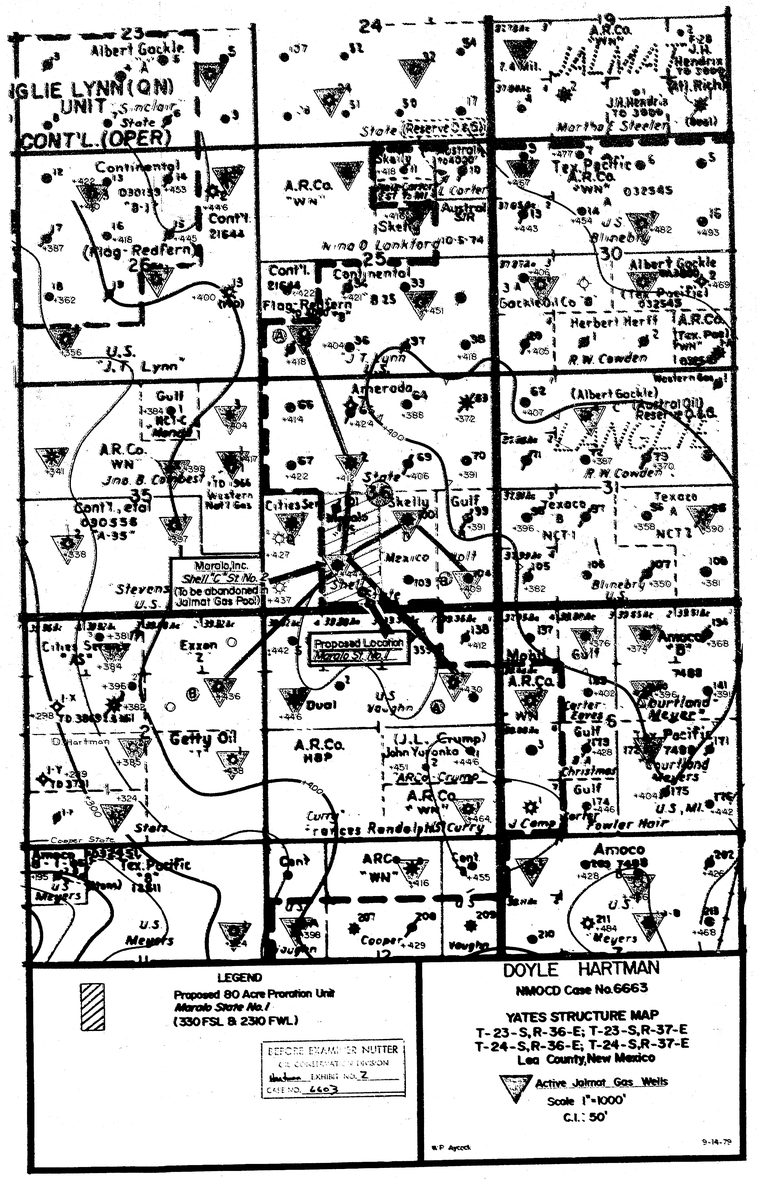


RECEIVED EXAMINER HUTTER
OIL CONSERVATION DIVISION
Hartman EXHIBIT NO. 3
CASE NO. 6603

STRUCTURAL
CROSS SECTION A-A'
(NORTH-SOUTH)

FIELD OR YATES & SEVEN RIVERS	County LEA		State N MEX.
Engineer W. P. A.	Draw. Hi's	Date 9-17-79	File HARTMAN
RADTKE, AYCOCK & ASSOC., INC. 310 WALL TOWERS WEST MIDLAND, TEXAS			EXHIBIT NO.


B
WEST
B'
EAST
EXXON NO. 1
STATE "Z"
GETTY NO. 2-C
(R. LOWE)
SHELL-STATE
SKELLY "D" NO. 1
(GETTY)
STATE (MLMU NO. 100)
GULF "B" NO. 2
(GETTY)
HOLT (MLMU NO. 104)
+500'
+500'
OH 2814-3073
OWWO-OH
2418-3275
A/500
PERF 2900-3000
10,000 MMCFGPD thru casing
TOP OF YATES
TOP OF SEVEN RIVERS
NO LOG AVAILABLE
PERF 2920-3090
SWF/10,000 + 10,000
OH 3450-3600
Shot 3440-3580 w/284
DSI 3375-608
GTS 9" @ 3.7 mcfpd
R 1062' GCH
626' HOCM & 236' Oil
TD 3073
IPF 3.60 MMCFGPD
OH 2814-3073
5-29-50
OWWO 6-9-76
TD 3275
IPF 0.639 MCFGPD
OH 2814-3275
6-9-76
AFT. WORKOVER 6-76
IPF 1.350 MMCFGPD
TD 3600
IPF 166 BOPD (GN.)
OH 3450-3600
10,000 MMCFGPD (YATES)
11-30-47
TD 3590
IPF 35 BOPD
OH 3400-3590
TD 3608
PB 3480
IPF 404 BOPD + 0.729 MMCFGPD
8-6-49
1955 JALMAT GAS COMPL.
IP 3,840 MMCFGPD
OWWO 5-25-56
INDEX MAP
BEFORE EXAMINER UTTER
OIL CONSERVATION DIVISION
EXHIBIT NO. 4
CASE NO. 6403
STRUCTURAL
CROSS SECTION B - B'
(WEST-EAST)
FIELD-UP YATES & SEVEN RIVERS
County LEA
State N. MEX.
Engineer W. P. A.
Drwn M's
Date 9-17-79
File HARTMAN
RADTKE, AYCOCK & ASSOC. INC.
310 WALL TOWERS WEST
MIDLAND, TEXAS
EXHIBIT NO.


23
24
19
Albert Gackle
A.R.Co.
"WN"
JALMAT
GLIE LYNN (QN)
UNIT
CONT'L. (OPER)
Simclair
State
State (Reserve O&G)
Continental
Cont'l.
21644
(Flag-Redfern)
Skelly
Austral
Nina O. Lankford
Tex Pacific
A.R.Co.
032545
Blinebry
26
25
30
Albert Gackle
Herbert Herff
R.W. Camden
U.S.
J.T. Lynn
Amerada
(Albert Gackle)
(Austral Oil)
Reserve O&G
Gulf
A.R.Co.
WN
Jno. B. Campbell
35
31
Texaco
NCT-1
NCT-2
Cont'l., etal
090556
"A-35"
Cities Service
Skelly
Gulf
Mexico
Marolo, Inc.
Shell "C" St No. 2
(To be abandoned in
Jalmat Gas Pool)
Stevens
Proposed Location
Marolo St. No. 1
Exxon
Amoco
Mobil
Getty Oil
Hartman
A.R.Co.
HBP
(J.L. Crump)
John Yuronka
A.R.Co.-Crump
Courtland Meyers
Pacific
Christmas
Gulf
Fowler Hair
Curry
Frances Randolph
Tex. Pacific
Cont'l.
ARCo
"WN"
Amoco
U.S.
Meyers
Cooper
Vaughn
LEGEND
Proposed 80 Acre Proration Unit
Marolo State No. 1
(330 FSL & 2310 FWL)
BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
EXHIBIT NO. 2
CASE NO. 6663
DOYLE HARTMAN
NMOCD Case No. 6663
YATES STRUCTURE MAP
T-23-S, R-36-E; T-23-S, R-37-E
T-24-S, R-36-E; T-24-S, R-37-E
Lea County, New Mexico
Active Jalmat Gas Wells
Scale 1"=1000'
C.I.: 50'
W.P. Aycock
9-14-79

DOVER ADDITION

SUMMARY OF INDIVIDUAL WELL INFORMATION
IN THE VICINITY OF THE PROPOSED WELL LOCATIONS
IN E/2, SW/4, SECTION 34, TOWNSHIP 23-S, RANGE 36-E
JALMAT (TANSILL-YATES-SEVEN RIVERS) POOL
LEA COUNTY, NEW MEXICO

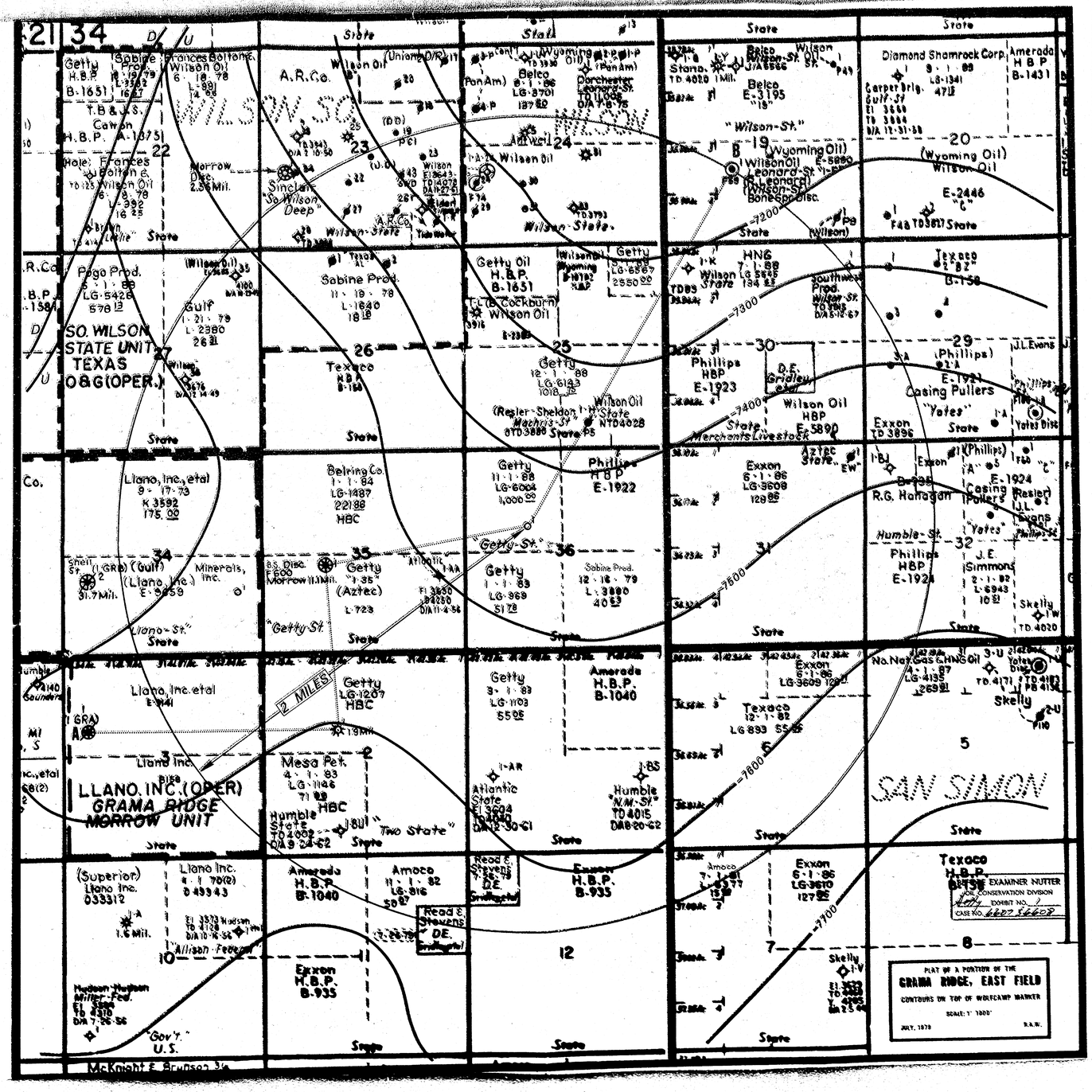
	Nuvatro, Inc. Shell "C" No. 1	Cutler Service State "C" 1	Getty Oil Co. Skelly-Mexico "B" 1	Conoco, Inc. Vaughn "B"-3	Amerada-Hess St. 1002	Conoco, Inc. Vaughn "B"-1	ARCO Camp, W. N.	ARCO Coalmont	ARCO Coalmont	ARCO Coalmont	Conoco, Inc. Lynn "B"-28	Conoco, Inc. Lynn "B"-25	Conoco, Inc. Lynn "B" 26	A. Curtis P.W. Condon "C"-1
Location of Well	24(K)-23S-36E	36(E)-23S-36E	36(J)-23S-36E	1(B)-24S-36E	36(P)-23S-36E	1(D)-24S-36E	6(E)-24S-37E	33(A)-23S-36E	35(D)-23S-36E	35(M)-23S-36E	25(J)-23S-36E	26(J)-23S-36E	26(J)-23S-36E	30(G)-23S-37E
Distance and Direction From Prospect. Location	330' SE	2200' SW	1320' SW	2730' SW	2600' SSW	2730' SW	6600' SE	4900' SW	4100' SW	5980' SSW	6600' SSE	9200' SW	7750' NE	
Completion Date	2-28-49	11-26-52	-	11-13-74	3-23-49	10-20-37	6-7-85	12-13-78	-	3-1-48	11-17-47	-	-	
Init. CAOFP, MCF/Day	10,000	4,492		718	5,697	55,300	1352	700	-	80,880	10,900	-	-	
Completion Interval	2900-3000	2915-3013	-	2828-3228	2930-3090	2969-3171	2948-3234	2950-3418	-	2776-3340	2894-3380	-	-	
Cumulative Gas Production, MCF @ 8-1-79	2,597,213	2,258,483	2,976,707	393,565	5,569,895	5,143,735	1,733,452	284,270	6,019,006	9,780,033	3,387,723	15,969,247	3,502,922	
Volumetric Analysis Results: Sum Sil. Por., % Bulk Vol. Sum Sil. Por. Thickness, Ft. Net Effective Pay, Feet	- - -	- - -	- - -	- - -	- - -	15.5 27.5 73.	22.4 32.5 103.	- - -	- - -	- - -	- - -	- - -	- - -	
Original Gas-in-place, MMCF/ac.	-	-	-	-	-	24.7	90.8	-	-	-	-	-	-	
Estimated OGIP, MMCF	3625	2650	3648	-	7250	8736	2959	591	6582	10,859	6030	10,170	3572	
Estimated Ult. Gas Rec., MMCF	2898*	2138	2977	426	5812	9209	2832	3250	6363	10,435	5484	10,396	7515	
Est. Gas Rec. Factor, % OGIP	80.0	80.1	81.6	-	80.4	92.3	95.3	-	96.6	96.4	87.3	88.5	91.5	
Est. Drainage Area, acres	-	-	-	-	-	305	32	-	-	-	-	-	-	
1978 DIMAP, psia	1352	92.2	249.2	-	-	470.2	142.2	352.2	123.2	130.2	111.2	154.2	456.2	

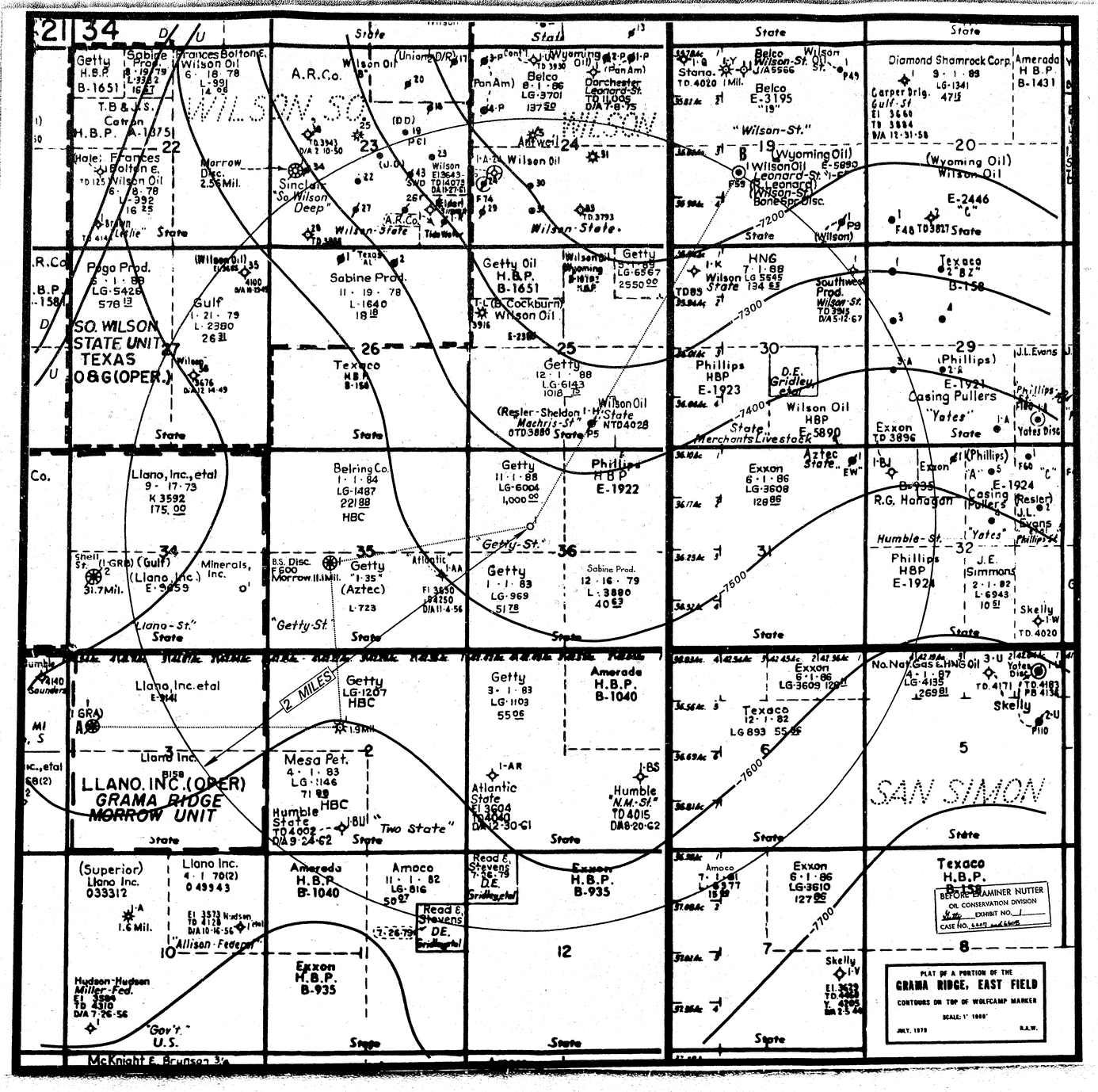
*Projected from well performance 1977-1978; previous well performance yields estimated ultimate recovery of 3103 MMCF. Less in ultimate recovery from change in performance to 250 MCF, with a recovery factor of 87.2% of OGIP.

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
Hanahan EXHIBIT NO. 7
CASE NO. 6605

Case No.
6607-
6608

Large Exhibits


SAN SIMON
WILSON
GRAMA RIDGE MORROW UNIT
LLANO, INC. (OPER)
SO. WILSON STATE UNIT
TEXAS
O&G(OPER.)
2 MILES
Getty
Sabine Prod.
Frances Bolton
Wilson Oil
T.B. & J.S. Cowan
H.B.P. A-1075
A.R.Co.
Sinclair "A" Wilson Deep
Wilson-State
Pogo Prod.
Gulf
Texaco
Getty Oil
H.B.P.
B-1651
Wilson Oil
Belco
Wyoming Oil
Leonard-St.
Wilson-St.
Bone Spr. Disc.
Diamond Shamrock Corp.
Amerada
H.B.P.
B-1431
Gulf Disc.
Morrow Disc.
Yates Disc.
Phillips
HBP
E-1923
E-1924
E-1922
Exxon
Aztec
Humble-St.
Skelly
Texaco
H.B.P.
B-1158
Llano, Inc., etal
Belring Co.
Mesa Pet.
Amoco
Read & Stevens
Humble
"N.M.-St."
Atlantic State
Hudson-Hudson Miller-Fed.
Gov't. U.S.
Two State
Llano-St.
Getty-St.
"Allison-Federal"
No. Nat. Gas & HNG Oil
Yates Disc.
EXAMINER NUTTER
OIL CONSERVATION DIVISION
EXHIBIT NO. 1
CASE NO. 6607 6608
PLAT OF A PORTION OF THE
GRAMA RIDGE, EAST FIELD
CONTOURS ON TOP OF WOLFCAMP MARKER
SCALE: 1" 1000'
JULY, 1978
R.A.W.


LLANO, INC. (OPER)
GRAMA RIDGE
MORROW UNIT
SO. WILSON
STATE UNIT
TEXAS
O&G(OPER.)
WILSON SO.
WILSON
SAN SIMON
Sinclair "So. Wilson Deep"
Morrow Disc. 2.56 Mil.
2 MILES
"Getty-St."
"Liano-St."
"Allison-Federal"
"Gov't."
"Two State"
"Wilson-St."
"Humble-St."
Getty H.B.P. B-1651
Sabine Prod. 11-19-78 L-1640 18 10
Pogo Prod. 5-1-85 LG-5428 578 13
Gulf 1-21-79 L-2380 26 31
Texaco H.B.P. B-158
Getty 12-1-88 LG-6143 1018 15
Wilson Oil State NTD4028
Belring Co. 1-1-84 LG-1487 22188 HBC
Getty 11-1-88 LG-6004 1,000 00
Phillips H.B.P. E-1922
Getty "1-35" (Aztec) L-723
Getty 1-1-83 LG-969 51 78
Sabine Prod. 12-16-79 L-3880 40 63
Getty LG-1207 HBC
Getty 3-1-83 LG-1103 55 06
Amerada H.B.P. B-1040
Mesa Pet. 4-1-83 LG-1146 71 89 HBC
Humble State TD 4002 D/A 9-24-62
Atlantic State El 3604 TD 4040 D/A 12-30-61
Humble "N.M.-St." TD 4015 D/A 8-20-62
Llano, Inc., etal 9-17-73 K 3592 175 00
Llano Inc. etal E-3141
Llano Inc. 4-1-70(2) 0 49943
Amoco 11-1-82 LG-816 50 97
Read & Stevens 7-26-79 D.E. Grid. Mchl
Exxon H.B.P. B-935
Belco Wilson-St. Oil J/A5566 TD 4020 (Mil.)
Belco E-3195 "19"
Wyoming Oil) Wilson Oil E-5890 Leonard-St. (R. Leonard) (Wilson-St.) Bone Spr. Disc.
HNG 7-1-88 Wilson LG 5545 134 55 State
Southwest Prod. Wilson-St. TD 3915 D/A 5-12-67
Phillips HBP E-1923
D.F. Gridley, etal
Wilson Oil HBP E-5890
Exxon 6-1-86 LG-3608 128 86
Aztec State
Diamond Shamrock Corp. 9-1-89 LG-1341 47 15 Carper Drlg. Gulf-St. TD 3660 TD 3884 D/A 12-31-58
Amerada H.B.P. B-1431
(Wyoming Oil) Wilson Oil E-2446 "C"
Texaco "BZ" B-158
(Phillips) E-1921 Casing Pullers "Yates"
J.L. Evans Phillips-St. Yates Disc.
Exxon TD 3896
(Phillips) E-1924 Casing Pullers "Yates"
R.G. Hanagan
J.E. Simmons 2-1-82 L-6943 10 51
Skelly I-W TD 4020
Exxon 6-1-86 LG-3609 120 91
Texaco 12-1-82 LG 893 55 06
No. Nat. Gas & HNG Oil 4-1-87 LG-4135 269 91
Yates Disc. TD 4171 TD 4183 PB 4154
Skelly 2-U P110
Amoco 7-1-81 L-6377 15 69
Exxon 6-1-86 LG-3610 127 86
Skelly I-V El 3629 TD 4400 Y 4295 Jun 2-5 66
Texaco H.B.P. B-158
BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
EXHIBIT NO. 1
CASE NO. 8607 and 8608
PLAT OF A PORTION OF THE
GRAMA RIDGE, EAST FIELD
CONTOURS ON TOP OF WOLFCAMP MARKER
SCALE: 1" 1000'
JULY, 1979
R.A.W.

Schlumberger

COMPENSATED NEUTRON-FORMATION DENSITY

COMPANY GETTY OIL COMPANY
Cpgl Ext Co 6607 & 6608
WELL GETTY "36" STATE COM #1
FIELD GRAMMA RIDGE MORROW
COUNTY LEA STATE NEW MEXICO

Location: 1980' FNL & 1650' FWL
Other Services: DLL/MSFL, CYBERLOOK, NGT, BHC

Permanent Datum	G.L.		Elev. 3669	Elev. K.B. 3692
Log Measured From	K.B.	23	Ft. Above Perm. Datum	D.F.
Drilling Measured From	K.B.			G.L. 3669

Date	4-20-79		4-23-79						
Run No.	ONE		TWO						
Depth-Driller	11100		13350						
Depth-Logger	11114		13367						
Btm. Log Interval	11113		13365						
Top Log Interval	SURF		6200						
Casing-Driller	9 5/8@5002		7" @ 11114	@		@			
Casing-Logger	5502		11118						
Bit Size	8 1/2		6 1/8						
Type Fluid in Hole	BRINE		WELLMUD BRINE POLYMER KCL						
Dens. / Visc.	9.3 / 28		12.9 / 40						
pH / Fluid Loss	8.5 / ml		9.5 / 13.2 ml		ml		ml		
Source of Sample	PIT		PIT						
Rm @ Meas. Temp.	.055@77 °F		.05 @ 89 °F		°F		°F		
Rmf @ Meas. Temp.	.055@77 °F		.038 @ 89 °F		°F		°F		
Rmc @ Meas. Temp.	@ °F		.08 @ 89 °F		°F		°F		
Source: Rmf / Rmc	C		M C						
Rm @ BHT	.028@154 °F		.022 @ 172° °F		@ °F		@ °F		
Time Circulation Stopped	1900 4-19		1900 6-22						
Time Logger on Bottom	2300 4-19		0530 6-23						
Max. Rec. Temp.	158 °F		175 °F		°F		°F		
Equip. / Location	8075 / HOBBS		8066 / HOBBS						
Recorded By	NEUMAN		DANIEL						
Witnessed By	MERCHANT		MIPP						

The well name, location and borehole reference data were furnished by the customer.

RUN NO.	ONE	TWO
Bit Size	8 1/2"	FULL
Full Gauge (in.)	FULL	6 1/8"
Depth Drlr.	11000	13000
Depth Log.	11114	13367
CASING/MUD DATA		
Csg. Size	7"	5"
Csg. Wgt.	29	18
Csg. Grade	P110	P110
Csg. Collar	11116	13365
Mud Type	BRINE	POLYMER
Mud Density	9.3	12.9
Mud Viscosity	28	40
Mud Resistivity	.055@77	.05@89
Mud Sample Source	PIT	PIT
Rmf @ Temp.	.028@154	.022@172
Rmc @ Temp.		.08@89
Rm @ BHT	.028@154	.022@172
Time Since Circ.	12	12
Max. Rec. Temp.	158	175
Equip. Location	8075 HOBBS	8066 HOBBS
Recorded By	NEUMAN	DANIEL
Witnessed By	MERCHANT	MIPP

RUN NO.	ONE	TWO
Time Log	2205	0530
Depth	11111	13367
REMARKS		

COMPANY BOX

MISC. OPS.	SEC. CAL.	
Spec. Cal.	FILM	
Spec. Gal.	TAPE	
Short Spacing - Before Log	2865	SEC. CAL.
Short Spacing - After Log	2839	FILM
Pre-Before Log	2827	
Pre-Before Log	2827	
Pre-Before Log	6556	
Pre-After Log	6556	
Pre-After Log	6557	

DETAIL LOG
5" = 100'

CORRECTION — GRAMS/CC — Use this scale when Correction is greater than ±.25 GM/CC

BULK DENSITY — GRAMS/CC — L.D. 1.5 / L.D. 3.0

CNL POROSITY — %

DEPTH — RUN 2

CALIPER — DUAL IN INCHES — 5 / 15

GAMMA RAY — API UNITS — 0 / 100 / 100 / 200

RUN 1

GAMMA RAY — API UNITS — 0 / 100 / 100 / 200

POROSITY INDEX (%) — LIME — MATRIX

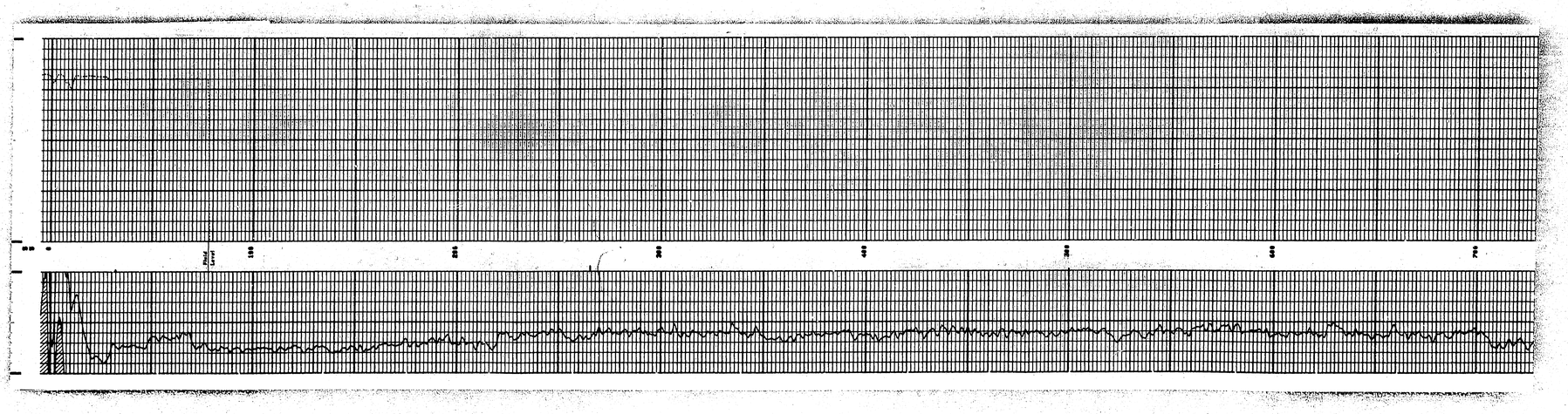
COMPENSATED FORMATION DENSITY POROSITY — 30 / 20 / 10 / 0 / -10

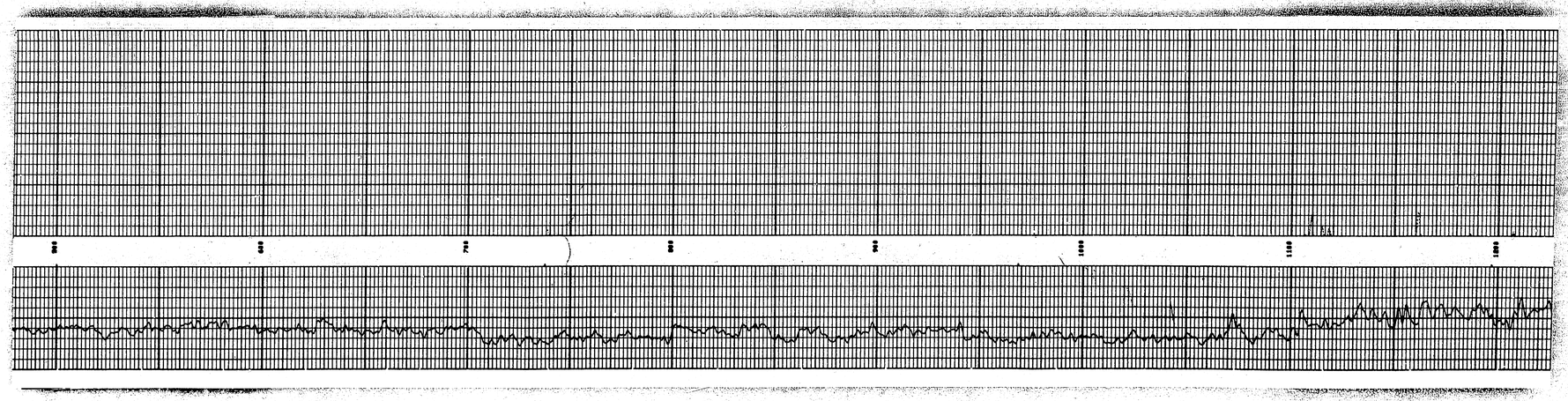
CALIPER — DUAL IN INCHES — 6 / 16

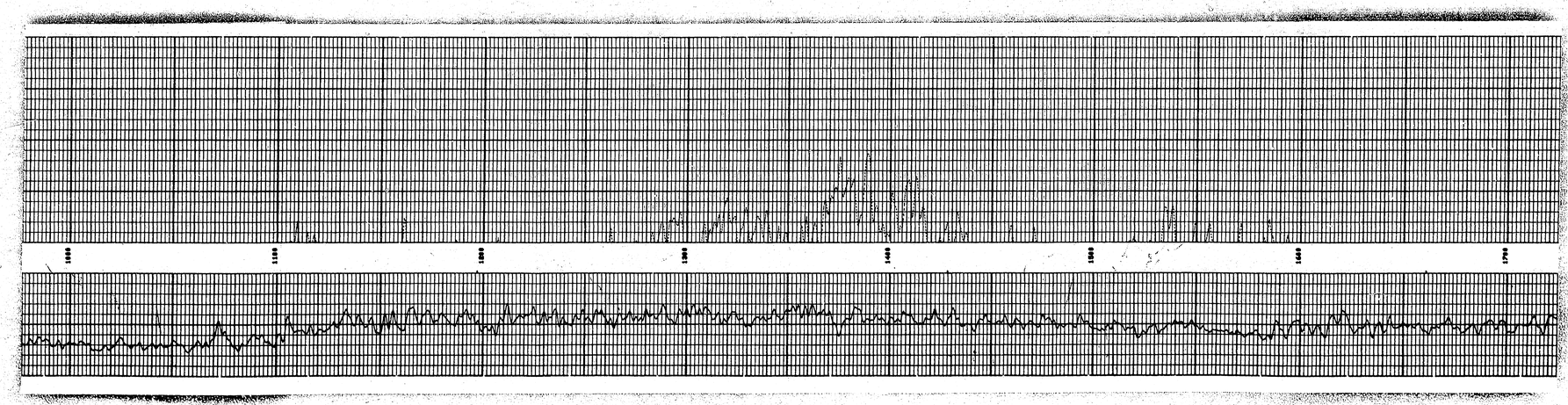
COMPENSATED NEUTRON POROSITY — 30 / 20 / 10 / 0 / -10

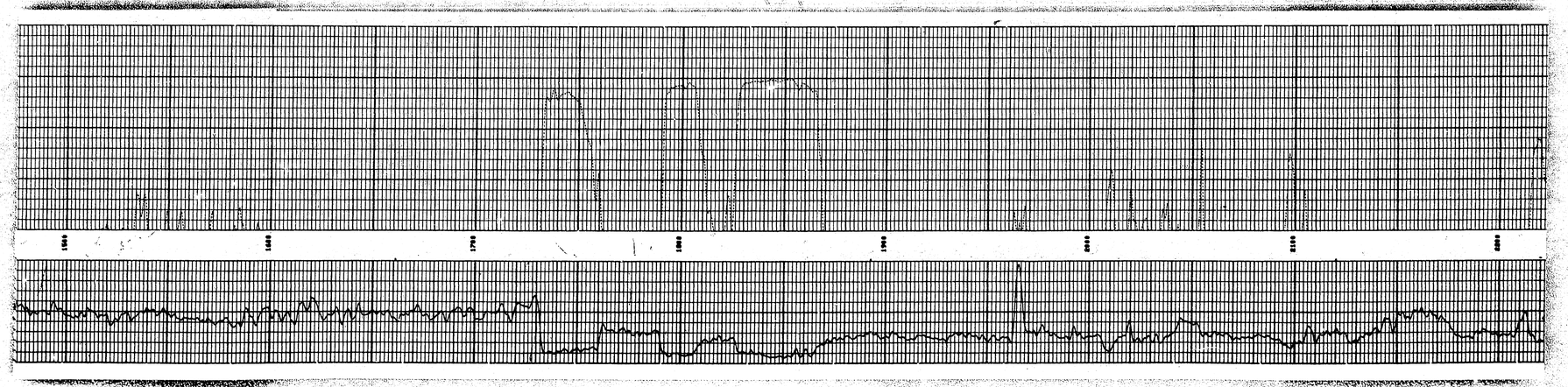
Field Level

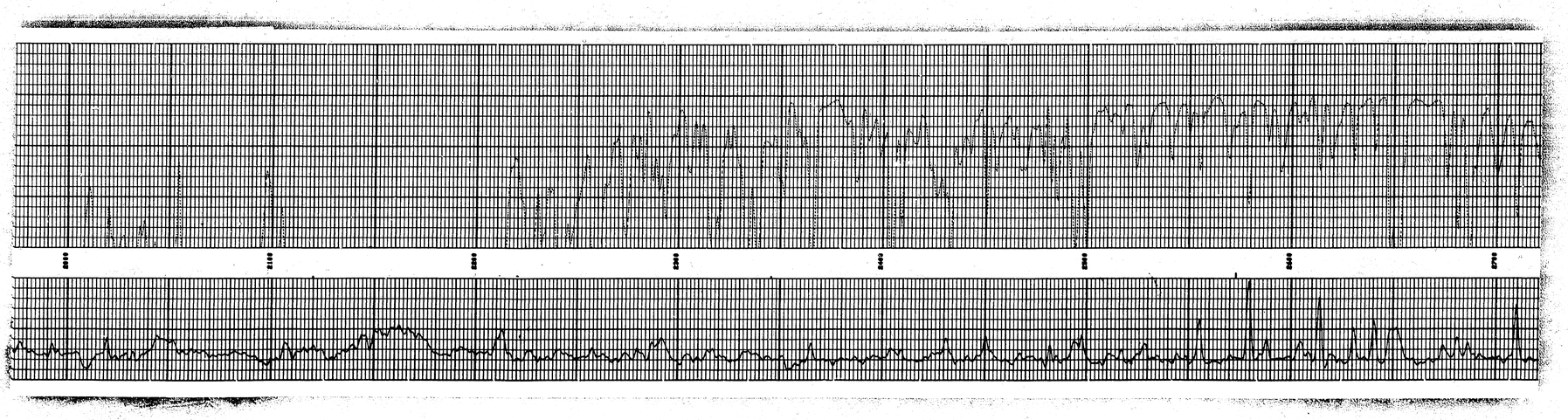
100 200

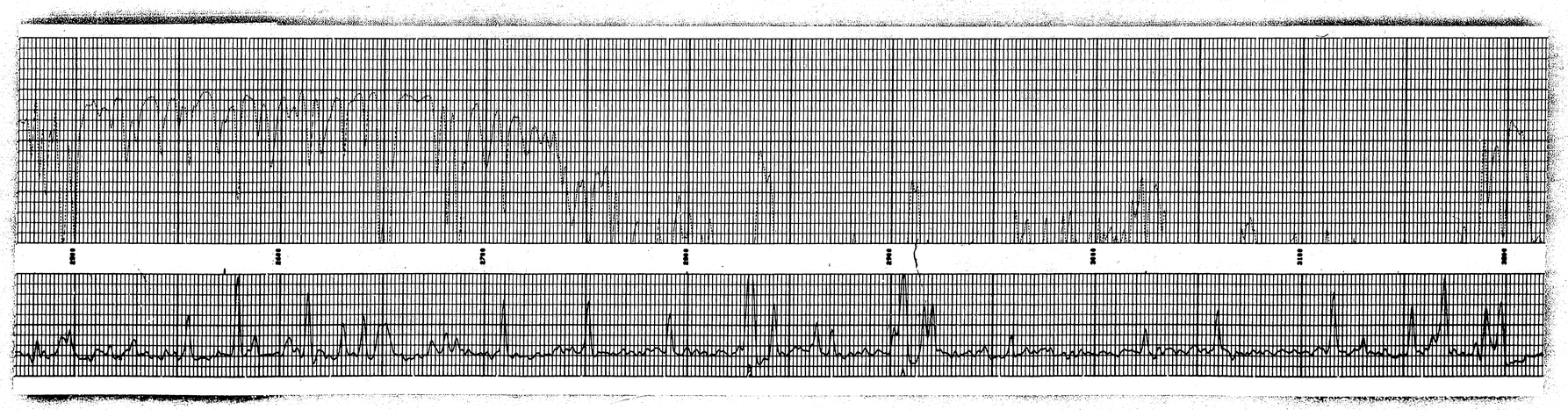


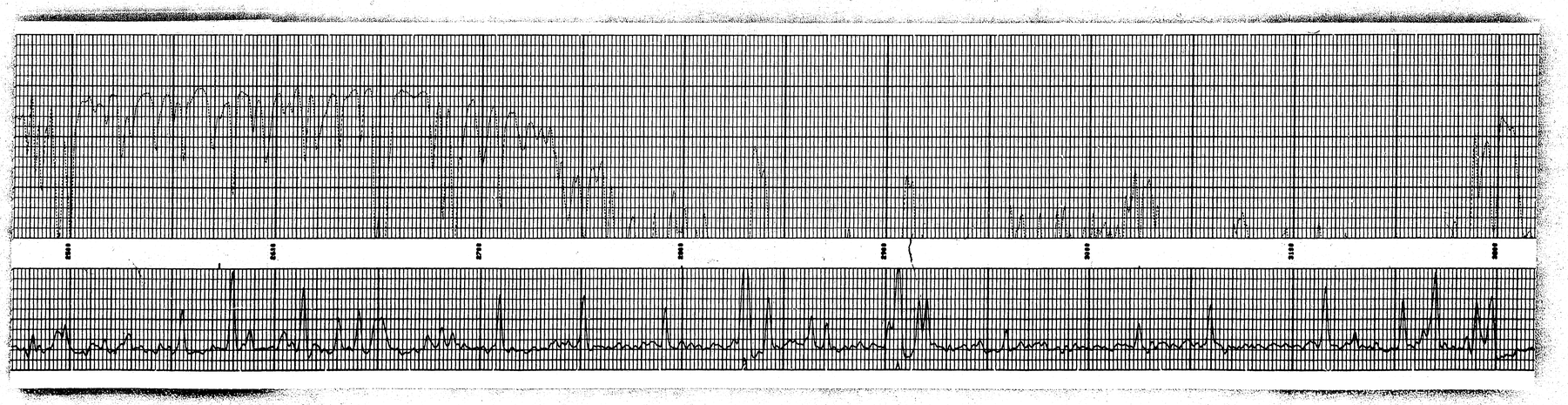


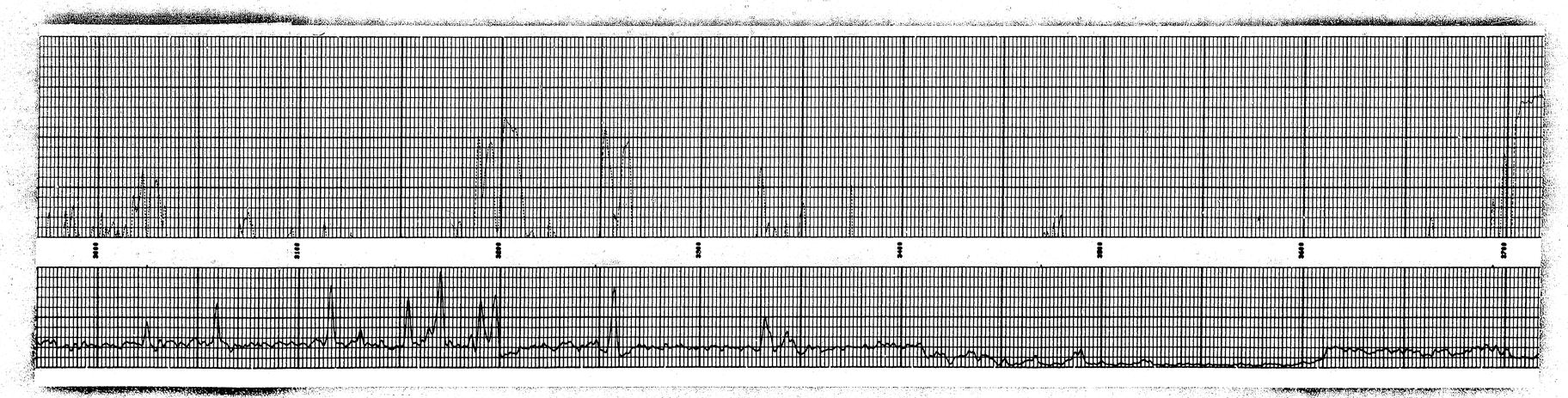


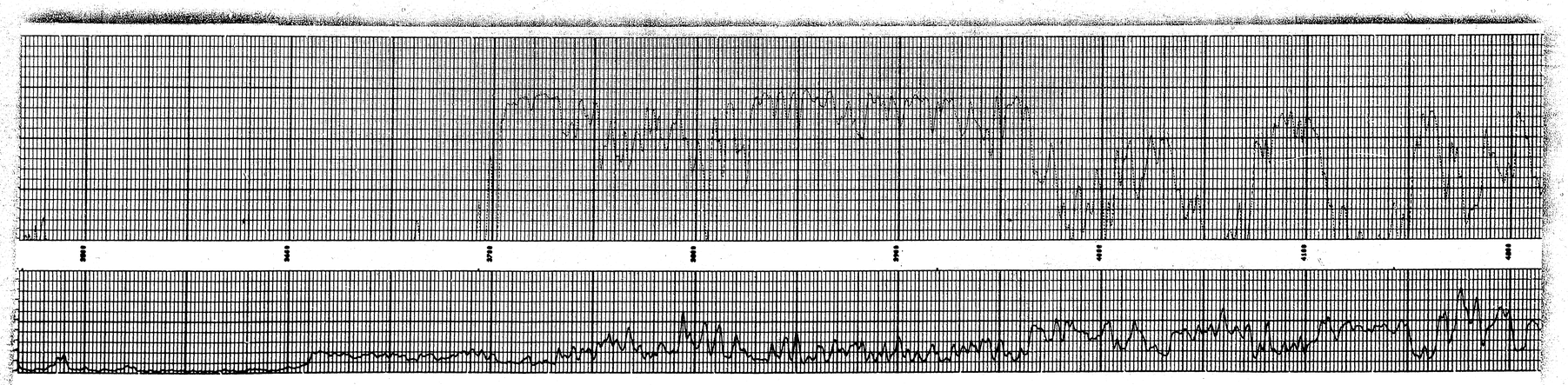


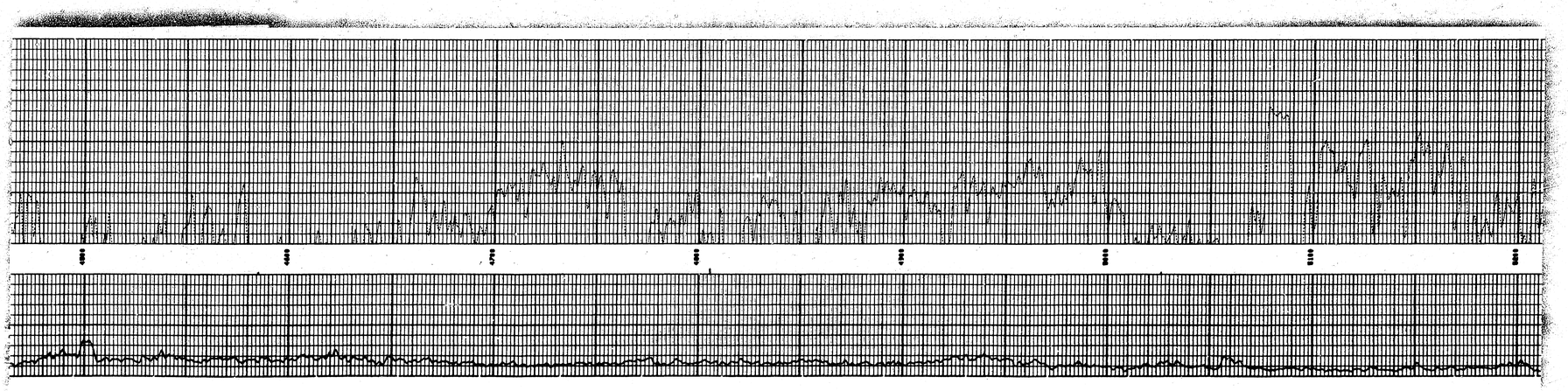


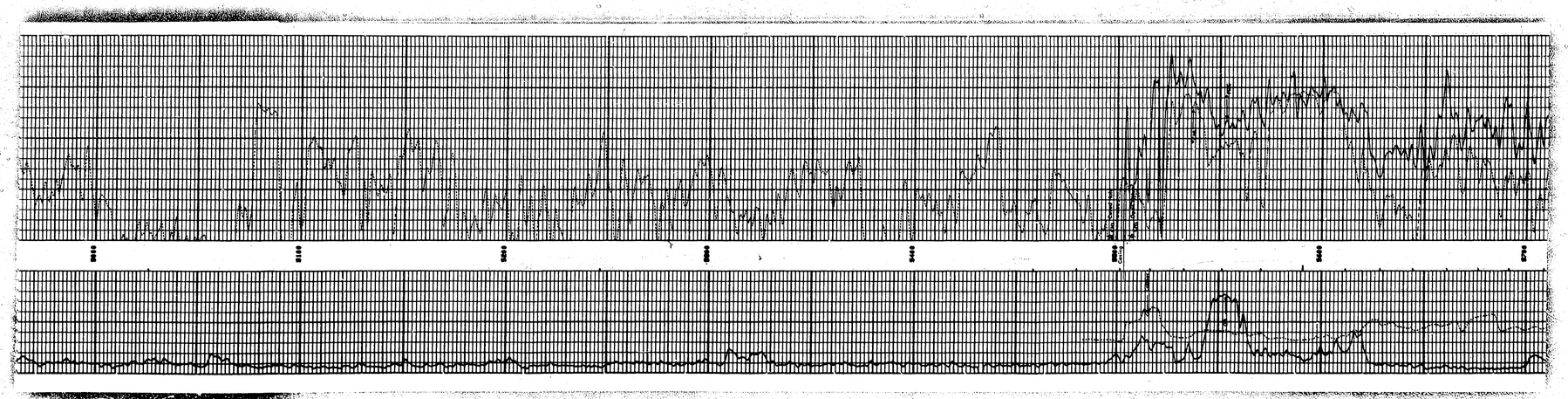


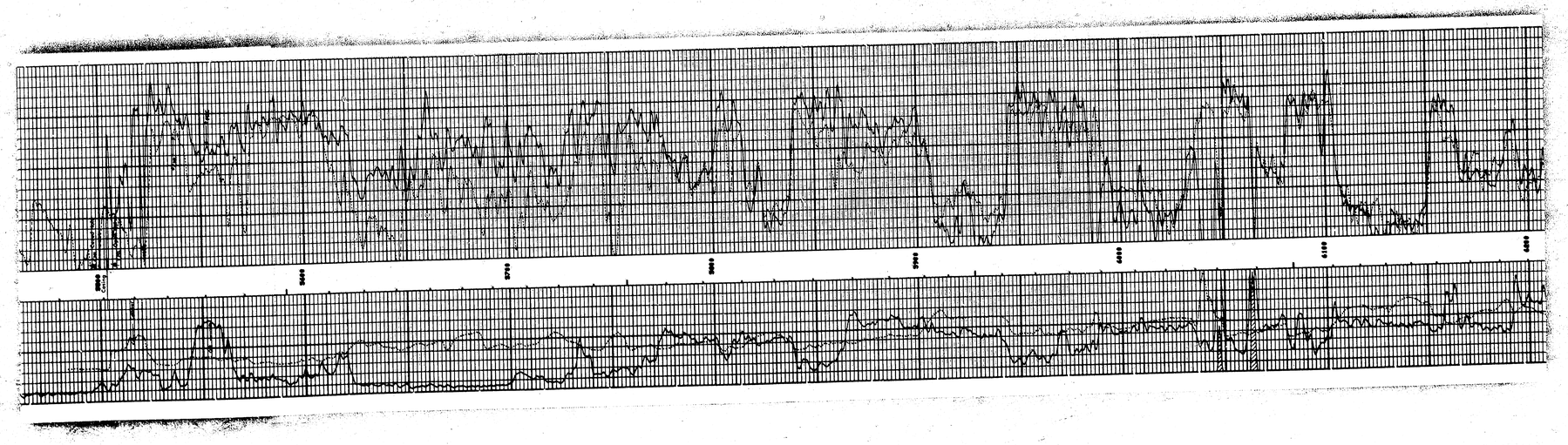


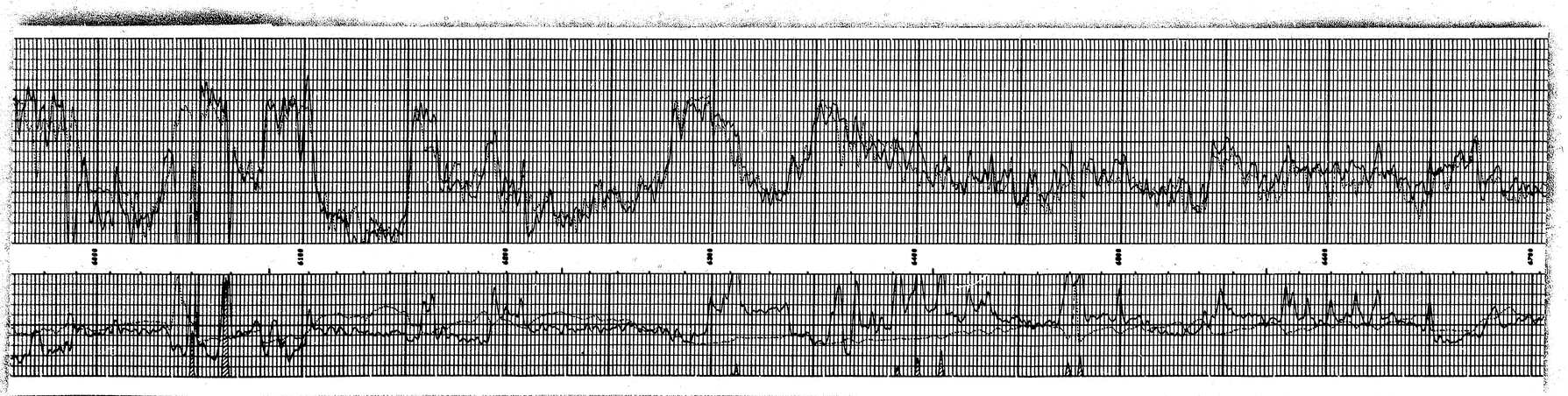


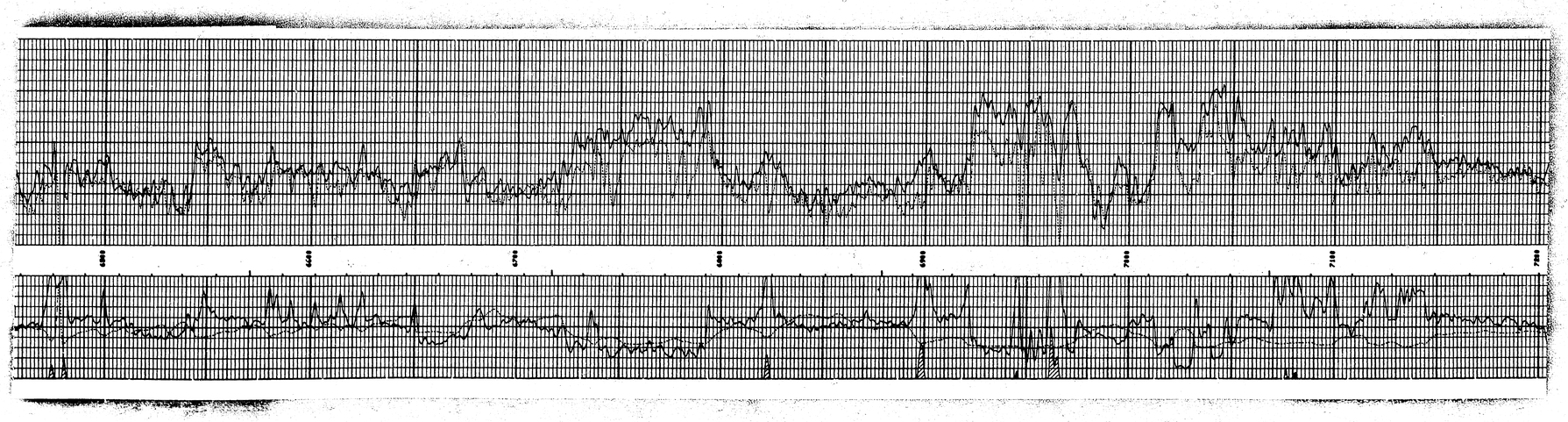


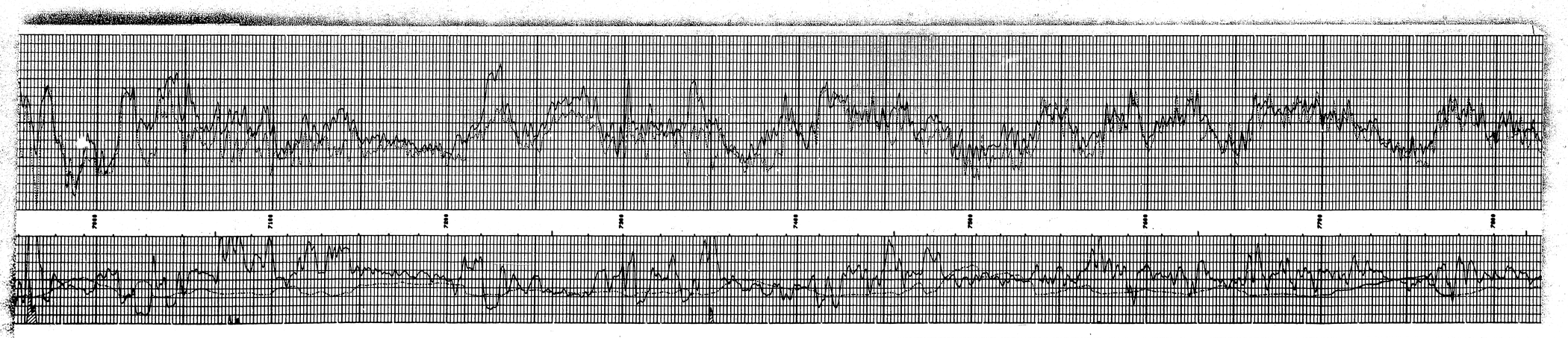








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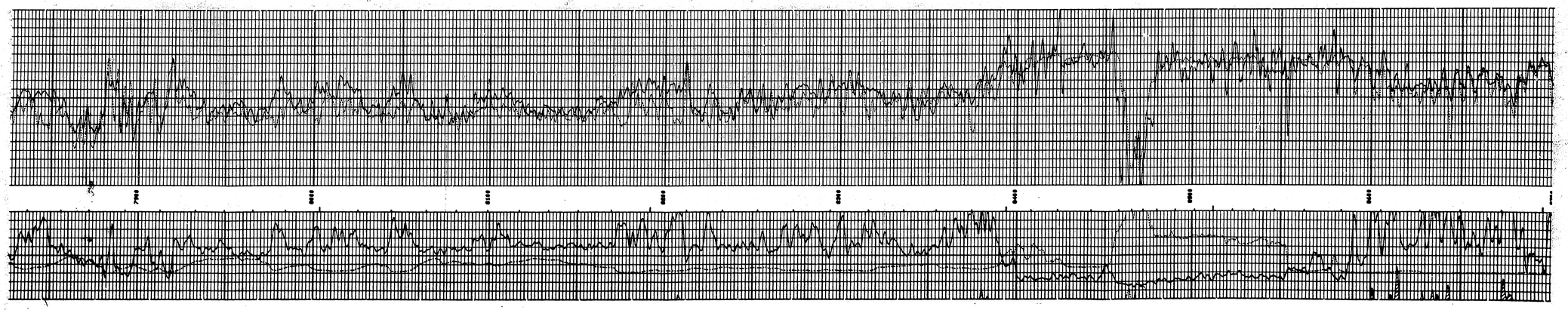
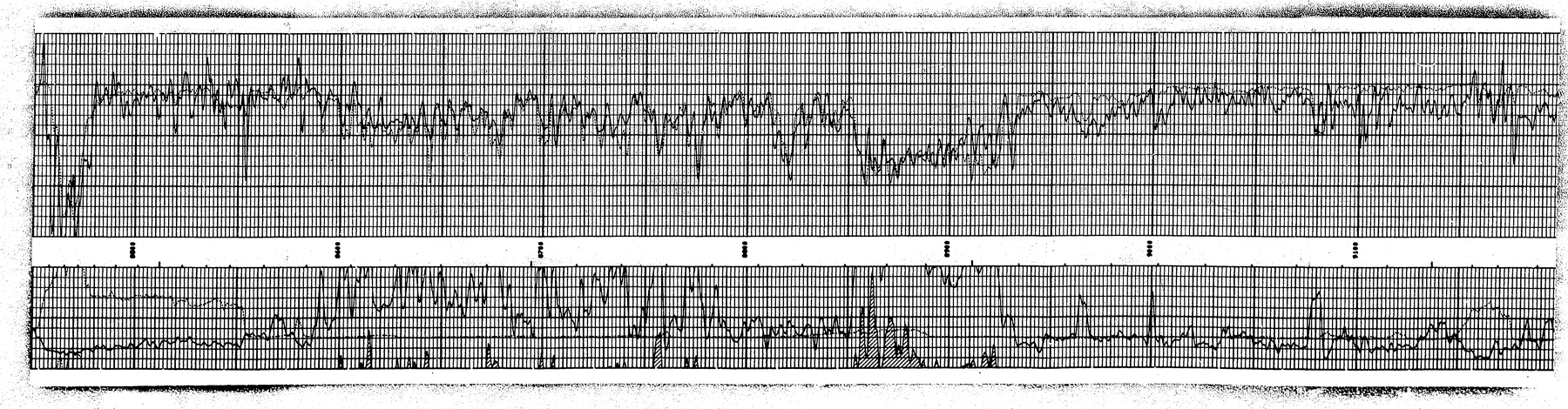
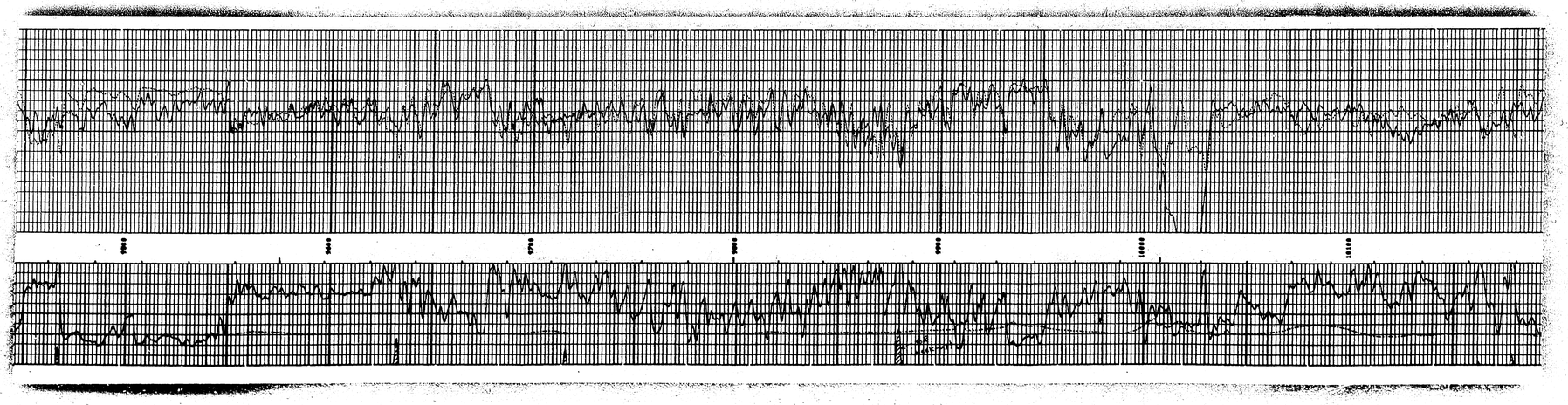
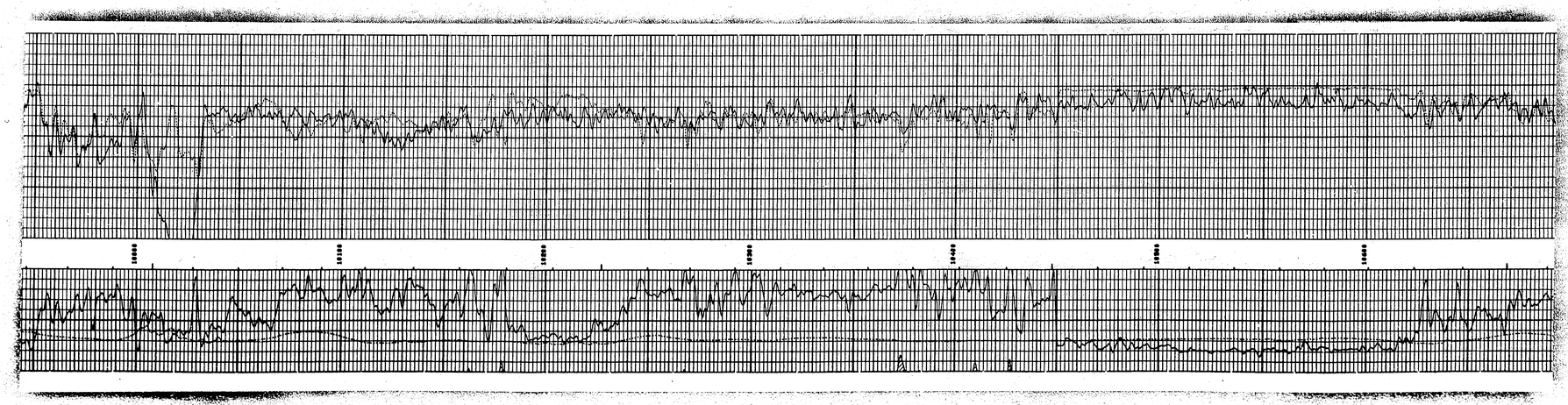
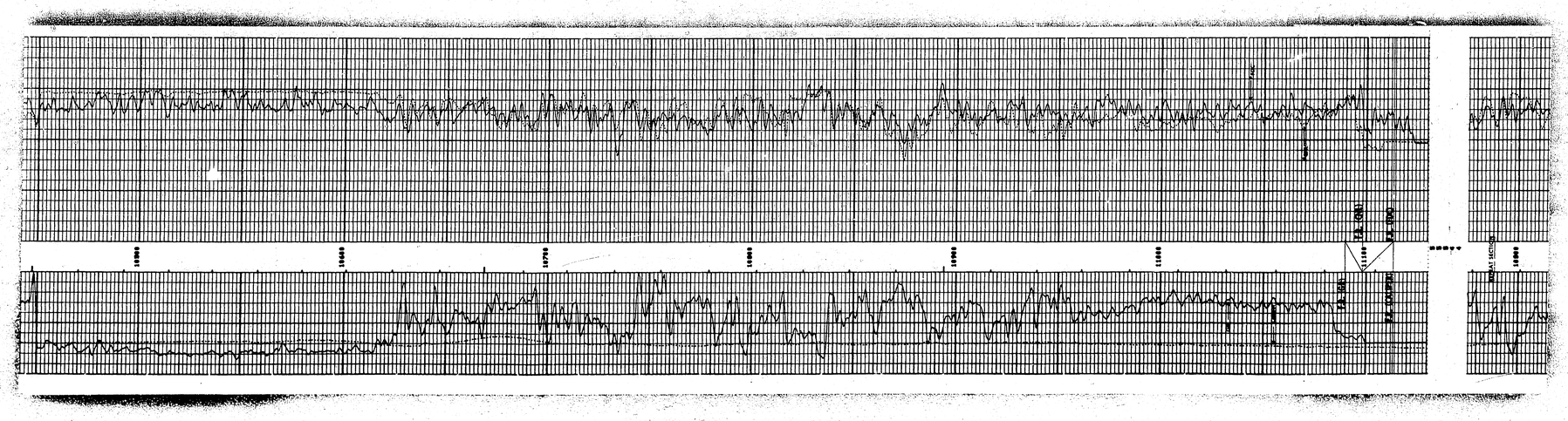
7700
7800







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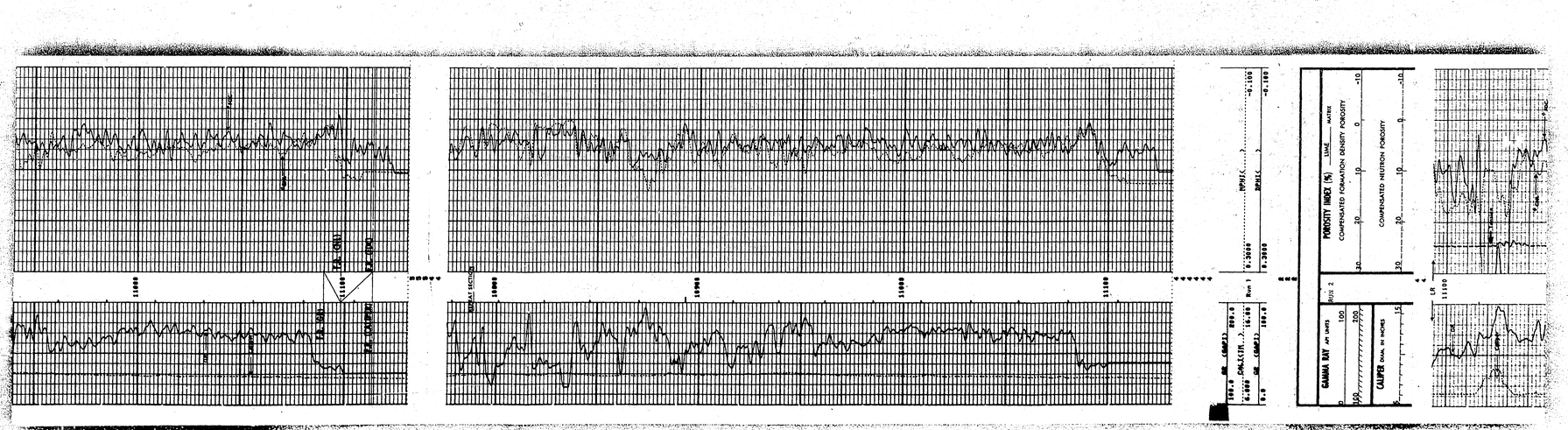
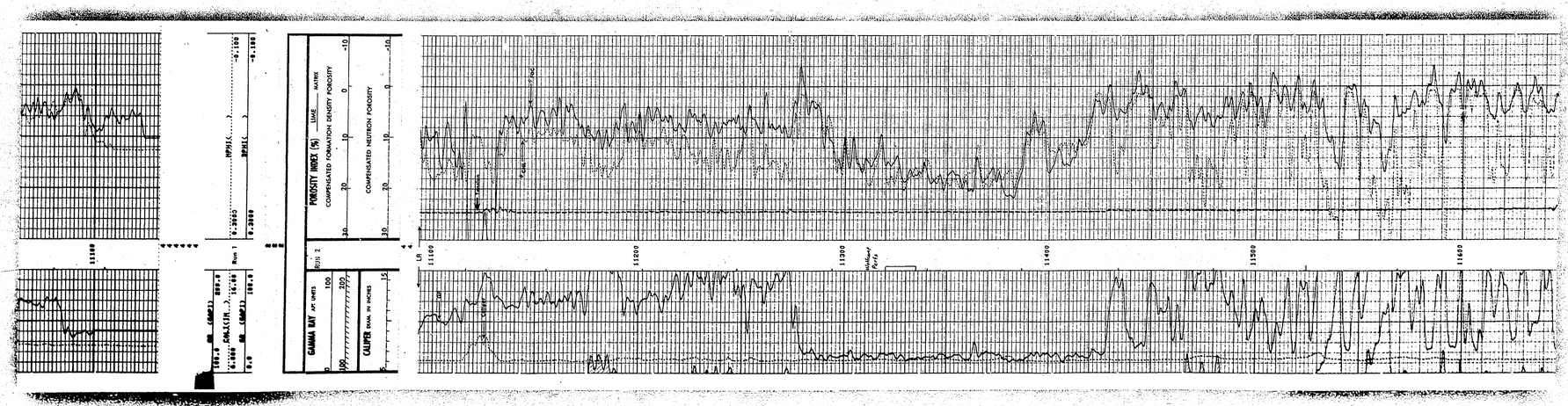
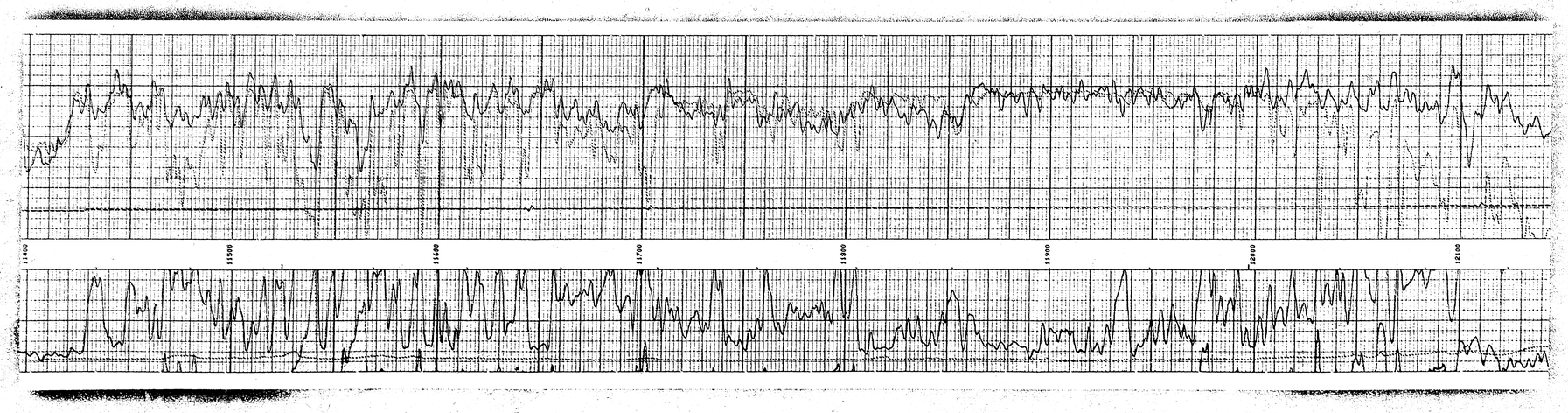

TD (BIT)
TD (DIL)
TD (BHC)
TD (CALIPER)
BOREHOLE SECTION
NPHI/C
RHOB/C
Run 1
POROSITY INDEX (%)
LIME
MATRIX
COMPENSATED FORMATION DENSITY POROSITY
COMPENSATED NEUTRON POROSITY
GAMMA RAY API UNITS
CALIPER SIGNAL IN INCHES
Run 2
DIL
CNPOR
RHOB


POROSITY INDEX (%)
LIME
MATRIX
COMPENSATED FORMATION DENSITY POROSITY
COMPENSATED NEUTRON POROSITY
GAMMA RAY API UNITS
CALIPER
11100
11200
11300
11400
11500
11600
Run 1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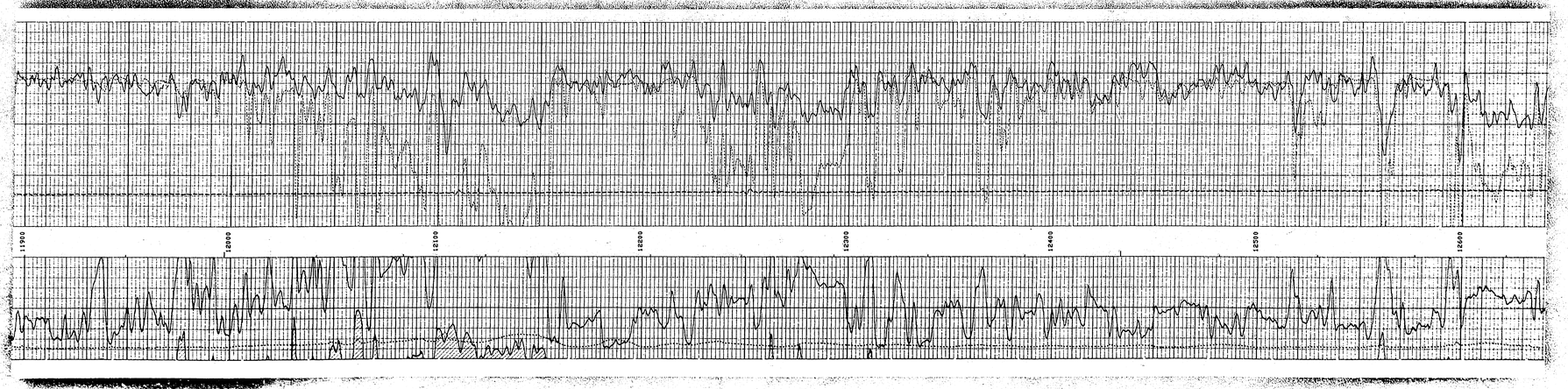
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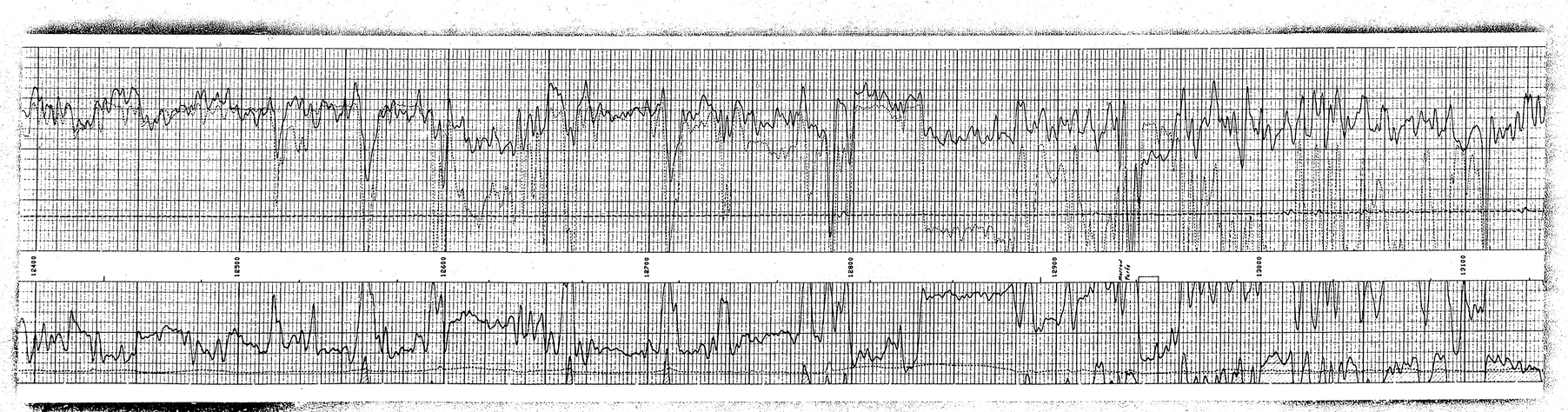
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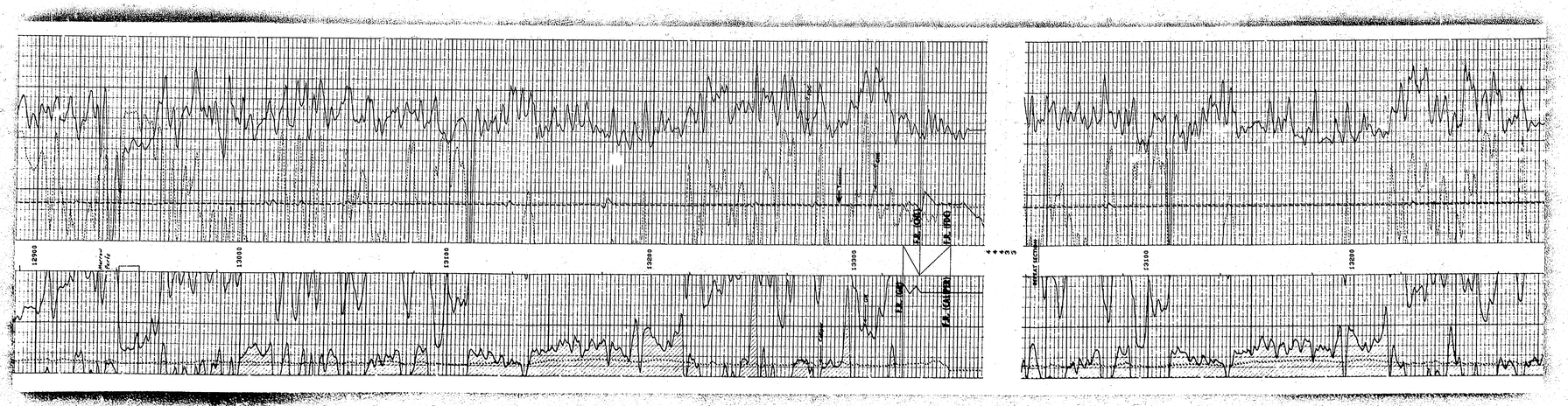
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FA. (PA)
FA. (GE)
FA. (GE/PA)
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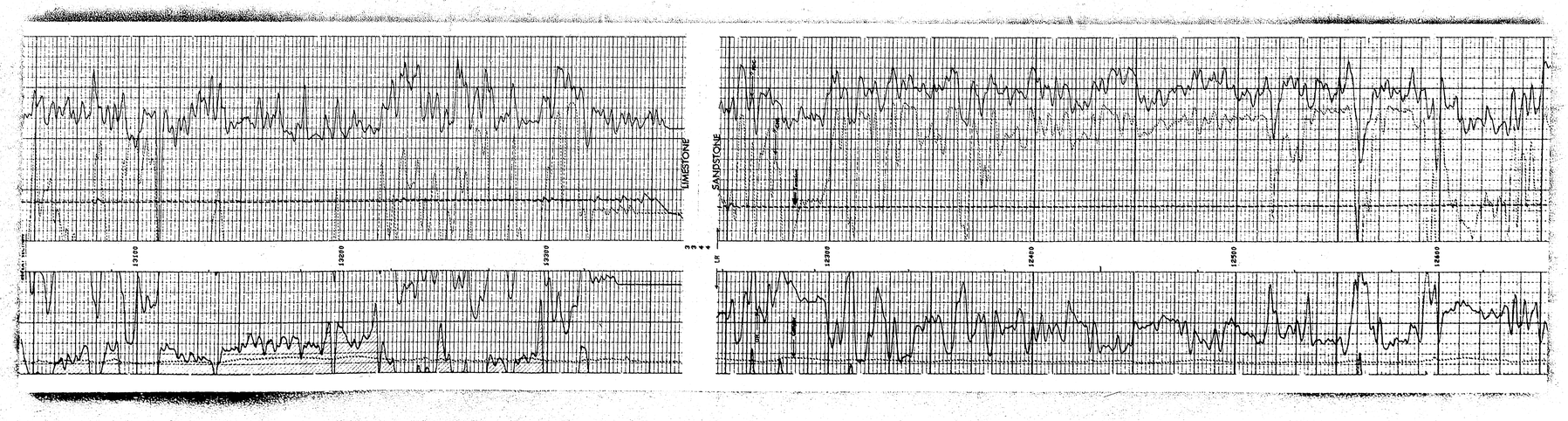
13200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SANDSTONE
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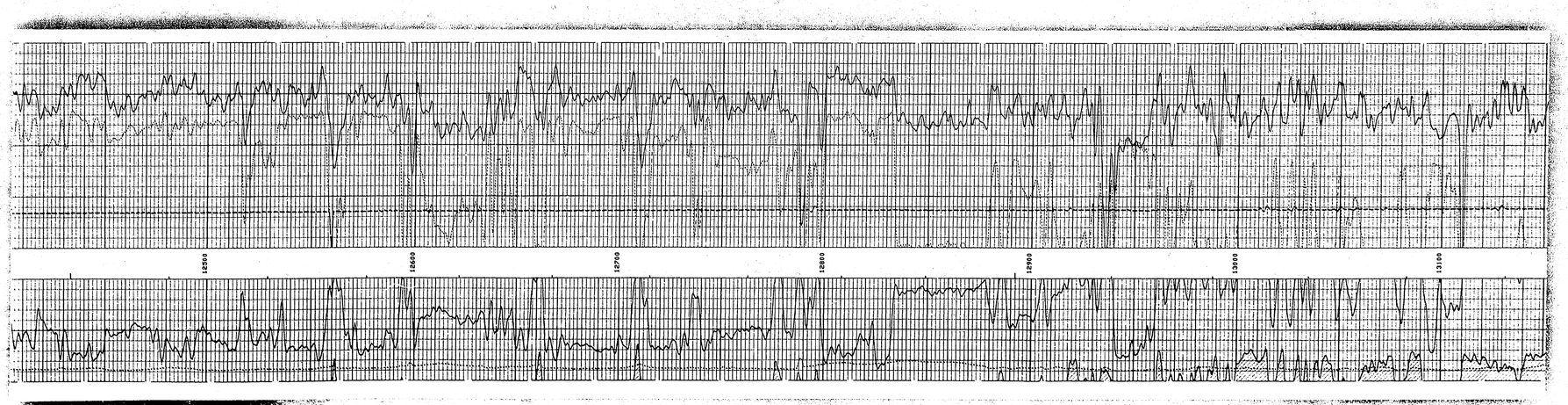
13300
12300
12400
12500
12600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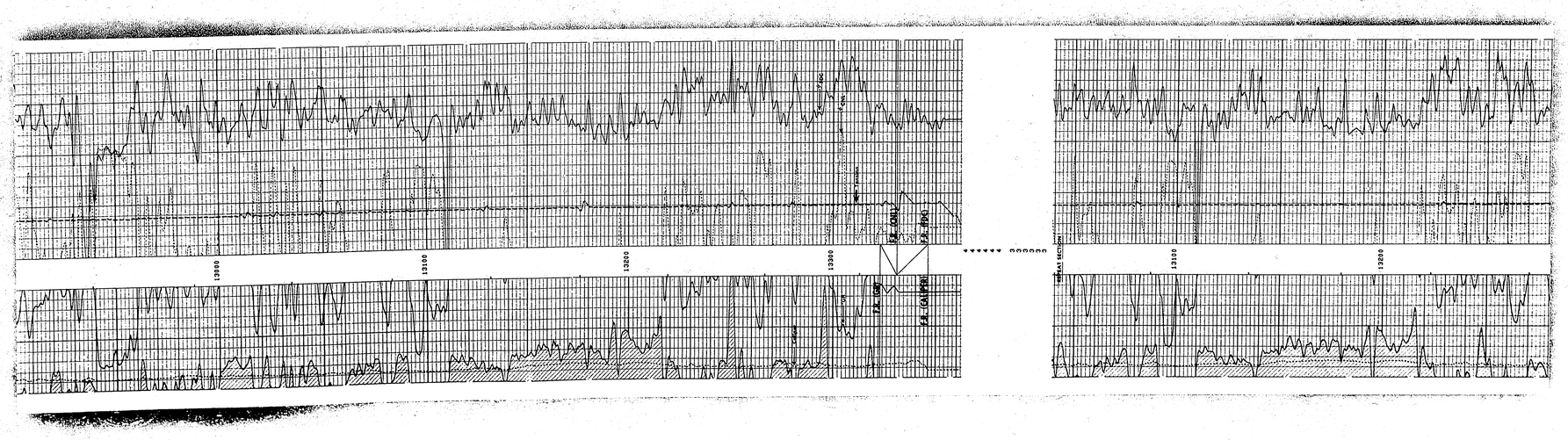
12600
12700
12800
12900
13000
13100


12800
13000
13100
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13300
13100
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FA_CONV
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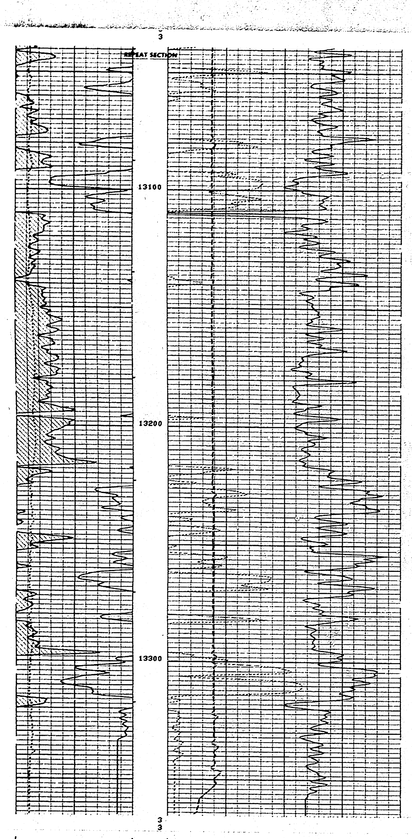
FA_DIV
FA_CALPRM



Run 1

BEFORE SURVEY CALIBRATION SUMMARY

PERFORMED: 79/04/19
PROGRAM FILE: MUC (VERSION 12.4 78/12/ 0)

SGTE DETECTOR CALIBRATION SUMMARY

	MEASURED BKGD	JIG	CALIBRATED	UNITS
GR	22	186	164	GAPI

CNTA DETECTOR CALIBRATION SUMMARY

	TANK CALIBRATED	MEASURED	JIG CALIBRATED
NRAT	0.0	2.25	2.15

PSTE DETECTOR CALIBRATION SUMMARY

	BLOCK CALIBRATED	MEASURED	JIG CALIBRATED	UNITS
FFDC	0	446	336	CPS
NFDC	0	652	527	CPS

PSTE CALIPER CALIBRATION SUMMARY

	MEASURED SMALL	LARGE	CALIBRATED SMALL	LARGE	UNITS
CALI	7.0	10.0	8.0	12.0	IN

Run 2

AFTER SURVEY TOOL CHECK SUMMARY

PERFORMED: 79/04/19
PROGRAM FILE: MUC (VERSION 12.4 78/12/ 0)

CNTA TOOL CHECK

	JIG BEFORE	AFTER
NRAT	2.12	2.13

POROSITY CHANGE (LIME): 0.002

PSTE TOOL CHECK

	JIG BEFORE	AFTER	UNITS
FFDC	336	336	CPS
NFDC	515	510	CPS

SHOP SUMMARY

PERFORMED: 79/03/16
PROGRAM FILE: SHOP (VERSION 12.5 78/12/ 0)

CNTA DETECTOR CALIBRATION SUMMARY

	TANK MEASURED	CALIBRATED	JIG MEASURED	CALIBRATED
NRAT	2.23	2.15	2.23	2.16

(CNC:485 ; CNS:549)

PSTE DETECTOR CALIBRATION SUMMARY

	BLOCK MEASURED	CALIBRATED	JIG MEASURED	CALIBRATED	UNITS
FFDC	447	336	441	332	CPS
NFDC	644	527	635	520	CPS

(PSE:1162 ; PSC:3234 ; SFT:696)

Run 2

BEFORE SURVEY CALIBRATION SUMMARY

PERFORMED: 79/06/22
PROGRAM FILE: MUC (VERSION 12.4 78/12/ 0)

SGTE DETECTOR CALIBRATION SUMMARY

	MEASURED BKGD	JIG	CALIBRATED	UNITS
GR	22	191	168	GAPI

CNTA DETECTOR CALIBRATION SUMMARY

8

AFTER SURVEY TOOL CHECK SUMMARY

PERFORMED: 79/04/19
PROGRAM FILE: HUC (VERSION 12.4 78/12/ 8)

CNTA TOOL CHECK

	JIG BEFORE	JIG AFTER
NRAT	2.12	2.13

POROSITY CHANGE (LIME): 0.002

PGTE TOOL CHECK

	JIG BEFORE	JIG AFTER	UNITS
FFDC	308	308	CPS
NFDC	515	510	CPS

9

SHOP SUMMARY

PERFORMED: 79/03/16
PROGRAM FILE: SHOP (VERSION 12.4 78/12/ 8)

CNTA DETECTOR CALIBRATION SUMMARY

	TANK MEASURED	TANK CALIBRATED	JIG MEASURED	JIG CALIBRATED
NRAT	2.09	2.15	2.03	2.16

(CNC:1402 , CNB:1349)

PGTE DETECTOR CALIBRATION SUMMARY

	BLOCK MEASURED	BLOCK CALIBRATED	JIG MEASURED	JIG CALIBRATED	UNITS
FFDC	447	336	441	332	CPS
NFDC	664	507	655	503	CPS

(PSE:1162 , PGC:3334 , SFT:696)

1
2
3

Run 2

BEFORE SURVEY CALIBRATION SUMMARY

PERFORMED: 79/06/22
PROGRAM FILE: HUC (VERSION 12.4 78/12/ 8)

SGTE DETECTOR CALIBRATION SUMMARY

	MEASURED BKGD	JIG	CALIBRATED	UNITS
GR	22	191	160	GAPI

CNTA DETECTOR CALIBRATION SUMMARY

	TANK CALIBRATED	JIG MEASURED	JIG CALIBRATED
NRAT	2.15	2.21	2.15

PGTE DETECTOR CALIBRATION SUMMARY

	BLOCK CALIBRATED	JIG MEASURED	JIG CALIBRATED	UNITS
FFDC	336	494	339	CPS
NFDC	527	761	515	CPS

PGTE CALIPER CALIBRATION SUMMARY

	MEASURED SMALL	MEASURED LARGE	CALIBRATED SMALL	CALIBRATED LARGE	UNITS
CALI	7.3	10.9	8.0	12.0	IN

AFTER SURVEY TOOL CHECK SUMMARY

PERFORMED: 79/06/22
PROGRAM FILE: HUC (VERSION 12.4 78/12/ 8)

CNTA TOOL CHECK

	JIG BEFORE	JIG AFTER
NRAT	2.15	2.12

POROSITY CHANGE (LIME): -0.004

PGTE TOOL CHECK

	JIG BEFORE	JIG AFTER	UNITS
FFDC	339	345	CPS
NFDC	515	521	CPS

6
6
6

SHOP SUMMARY

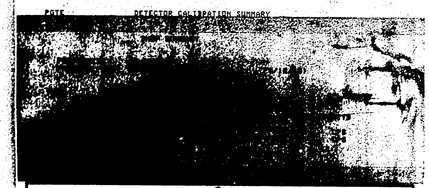
PERFORMED: 79/06/15
PROGRAM FILE: SHOP (VERSION 12.4 78/12/ 8)

CNTA DETECTOR CALIBRATION SUMMARY

	TANK MEASURED	TANK CALIBRATED	JIG MEASURED	JIG CALIBRATED
NRAT	2.22	2.15	2.22	2.14

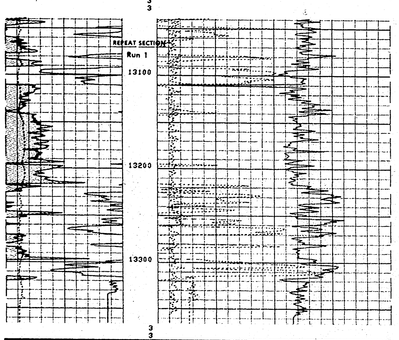
(CNC:1228 , CNB:1201)

PGTE DETECTOR CALIBRATION SUMMARY



CALIBRATION DATA

3
3



3
3

COMPANY GETTY OIL COMPANY
WELL GETTY "16" STATE COM #1
FIELD GRAMMA RIDGE MORROW
COUNTY LEA STATE NEW MEXICO

SWS FR 13346
SWS TO 13397
DRLR TO 13350
Elev.:
KB 3692
DF
GL 3669

A

B

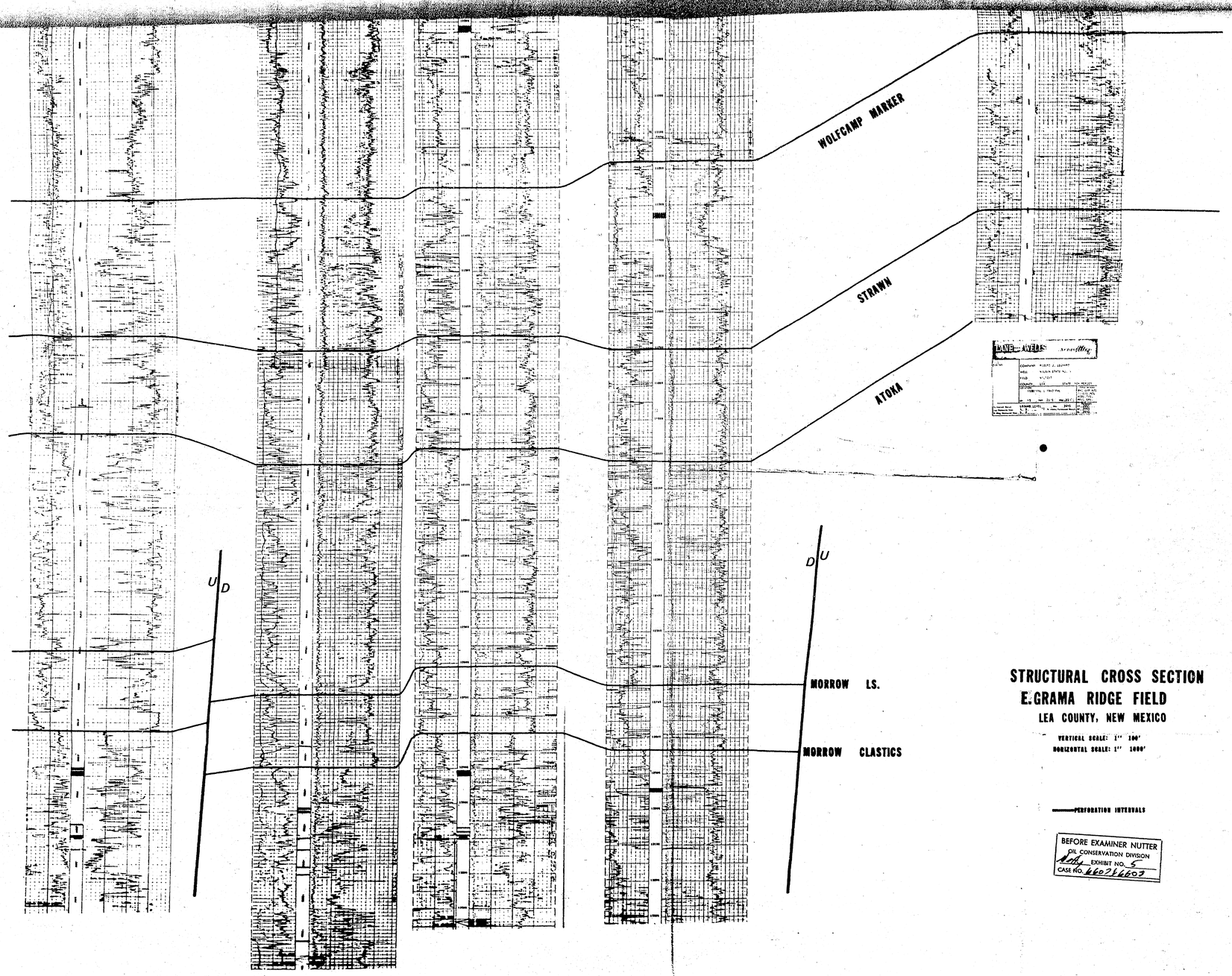
BONE SPRINGS

-7000 SUBSEA DATUM

WOLFCAMP MARKER

STRAWN

ATOKA



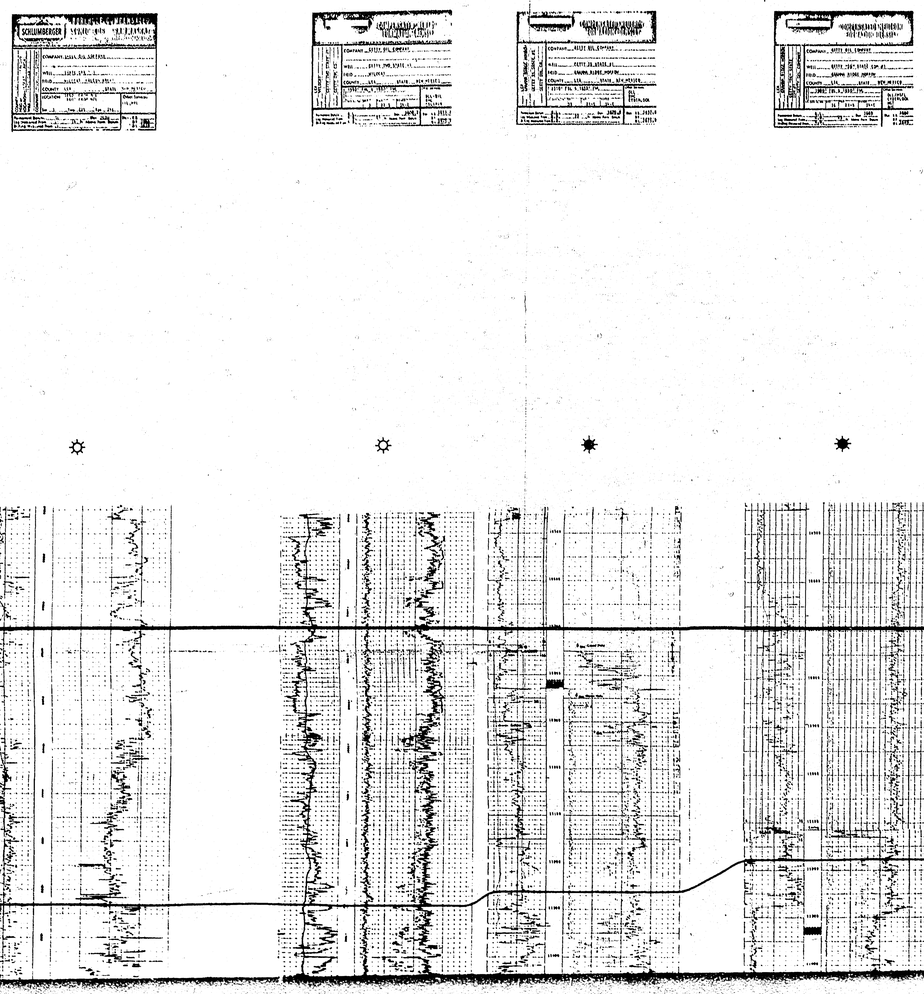
STRUCTURAL CROSS SECTION
E. GRAMA RIDGE FIELD
LEA COUNTY, NEW MEXICO

VERTICAL SCALE: 1" = 100'
HORIZONTAL SCALE: 1" = 1000'

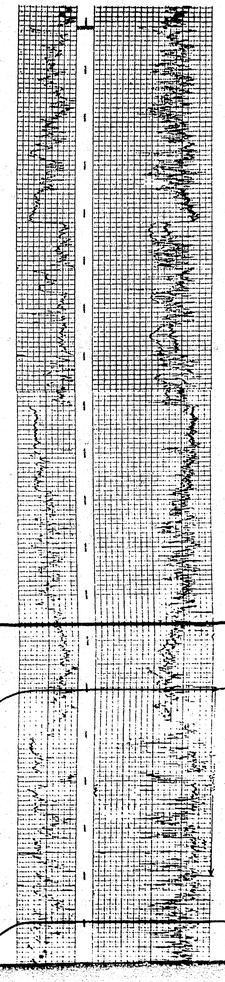
——— PERFORATION INTERVALS

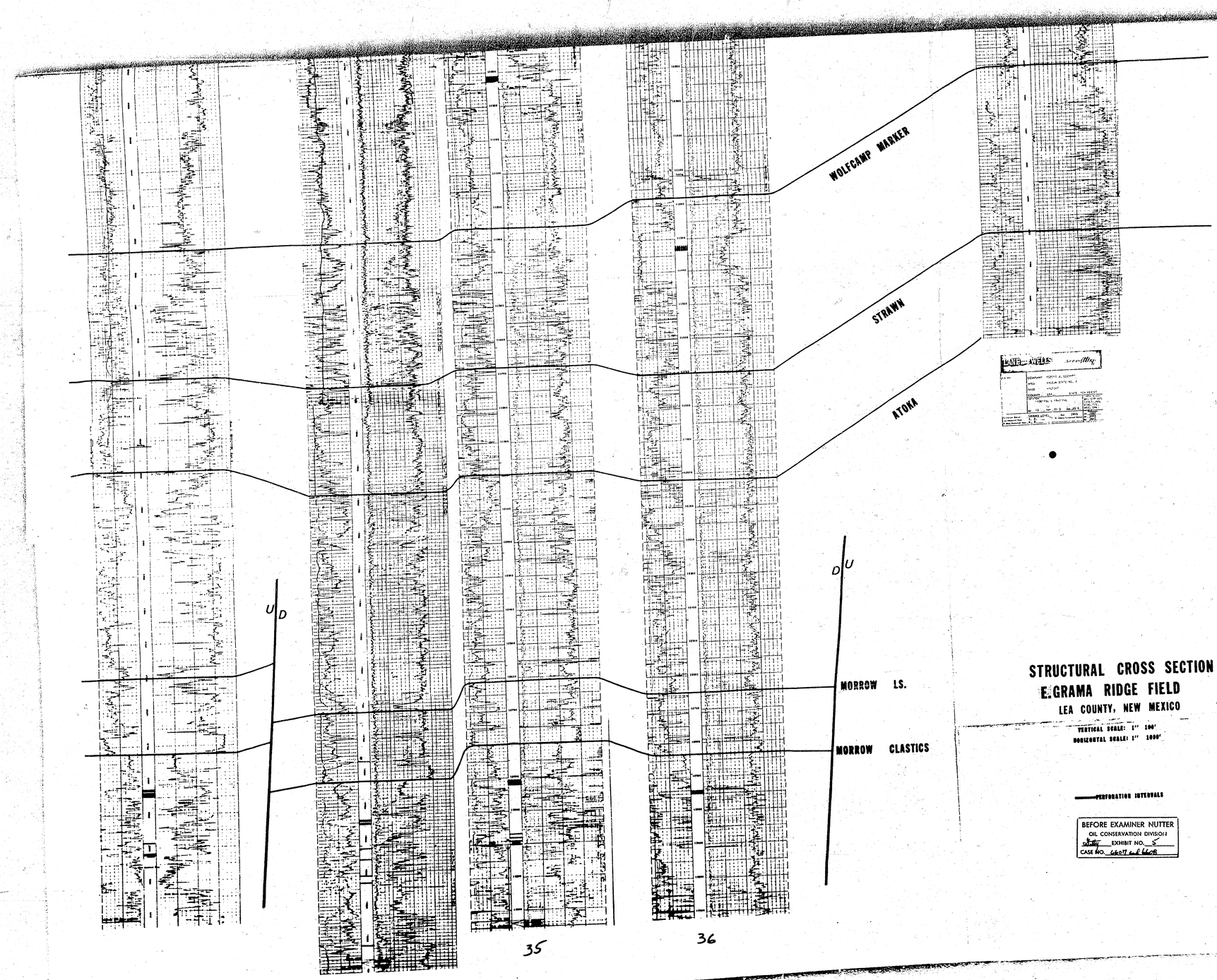
BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
EXHIBIT NO. 5
CASE NO. 6607/6608

A



B





STRUCTURAL CROSS SECTION
E. GRAMA RIDGE FIELD
LEA COUNTY, NEW MEXICO

VERTICAL SCALE: 1" = 100'
HORIZONTAL SCALE: 1" = 1000'

PERFORATION INTERVALS

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
EXHIBIT NO. 5
CASE NO. 6607 and 6608